

Adam Fried, Administrator  
Estate of Desmond Franklin,

VS.

Jose Garcia,

In the United States District Court  
Northern District of Ohio  
Eastern Divison  
Case No. 1:22-cv-00061

**Matthew Noedel**

Thursday, December 7, 2023

Reporter Lauren Shammo



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IN THE UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF OHIO  
EASTERN DIVISION

ADAM FRIED, Administrator, )  
Estate of DESMOND FRANKLIN, )

Plaintiff, )

vs. )

JOSE GARCIA, )

Defendant. )

No. 1:22-CV-00061

Judge Dan Aaron Polster

- - -

REMOTE ZOOM DEPOSITION OF MATTHEW NOEDEL

DATE: December 7, 2023 at 10:00 a.m.

PLACE: All parties appearing via Remote Zoom

REPORTER: Lauren Shammo, RPR, CRR  
Notary Public

- - -

DEFENDANT'S  
EXHIBIT

J

1 APPEARANCES:

2 On behalf of the Plaintiff:

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21  
22 - - -

## I N D E X

## EXHIBITS

Exhibit	Page	Line	Description
PX A	7	5	Notice of Deposition
PX B	7	5	Curriculum Vitae
PX C	7	5	Expert Report
PX D	7	5	Rebuttal Report

- - -

1 THOMAS NOEDEL,  
2 a Witness herein, called by the Plaintiff as if upon  
3 Examination, was by me first duly sworn, as hereinafter  
4 certified, and deposed and said as follows:

5 EXAMINATION

6 BY MS. BONHAM:

7 Q. Good morning, everyone. Good morning,  
8 Mr. Noedel, I am Elizabeth Bonham, I'm counsel for the  
9 plaintiff in this matter. Could you state and spell your  
10 name for the record?

11 A. My name is Matthew Noedel, M-a-t-t-h-e-w,  
12 N-o-e-d-e-l.

13 Q. Nice to meet you, Mr. Noedel.

14 A. Same here.

15 Q. For the record, we are conducting the  
16 deposition by Zoom but it is only being recorded  
17 stenographically and the witness is here pursuant to  
18 notice. Mr. Noedel, I know this isn't your first  
19 deposition, correct?

20 A. That's right.

21 Q. How many depositions do you think you've given  
22 in your career?

23 A. If I refer to my -- my CV, I've got about 38  
24 depositions in the last 18 years or so since I've been a  
25 private consultant.

1 Q. Okay. So this is not your first rodeo, so I  
2 won't belabor the basics, I just want to let you know we're  
3 going to -- we won't be here all day, I expect to be here  
4 for a few hours. If you do need a break, just let me know  
5 anytime, okay?

6 A. Okay.

7 Q. I just ask that we don't take a break while a  
8 question is pending, is that fair?

9 A. Sure, yes.

10 Q. And if I ask you a question I will assume, if  
11 you answer, that you've understood it, is that fair?

12 A. Yes.

13 Q. Otherwise, if you feel that any question is  
14 unclear or if you need further clarification, just ask me  
15 anytime and I'll be happy to clarify, okay?

16 A. Sure. That's fine.

17 Q. Okay. Are you experiencing any circumstances  
18 that would prevent you from testifying truthfully or  
19 accurately this morning?

20 A. No.

21 Q. Okay. I know it's earlier where you are than  
22 it is here, isn't it?

23 A. That's correct. It's just after 7:00 a.m.

24 Q. Okay. Well, I wouldn't be prepared to testify  
25 at that time in the morning, but I appreciate you being

1 here. Okay. So let's get into it. So I have sent your  
2 counsel four marked exhibits that I want to use during the  
3 deposition. Were they able to get those over to you? I  
4 just sent them.

5 A. I -- I believe I have them. I have the CV and  
6 my two reports, I'm not sure what the fourth exhibit is.

7 Q. The only other exhibit I want to use is the  
8 notice of deposition. Did your counsel send that over to  
9 you?

10 A. Yes, they did.

11 Q. Okay. So what I would like to do, unless  
12 anyone objects, because the screen share on Zoom gets a  
13 little unwieldily for me, I would just like to enter into  
14 the record the way I've marked those and then if you have  
15 them with you, can you just refer to your copy rather than  
16 a screen share?

17 A. That's absolutely fine. Yes.

18 MS. BONHAM: Okay. Is that fine with  
19 you, J.R.?

20 MR. RUSSELL: Yes. If we get in a  
21 pinch though, let me know and I can -- I think  
22 I can pull them up, so, but he has everything.

23 MS. BONHAM: Okay. Great.

24 Q. So I'm going to enter, the notice of  
25 deposition is going to be **Exhibit A** to the deposition.

1 Matthew Noedel's CV is going to be Exhibit B. The  
2 preliminary report of Matthew Noedel is going to be Exhibit  
3 C. And then the rebuttal report of Matthew Noedel is going  
4 to be Exhibit D.

5 (At this time Plaintiff's Exhibits A,  
6 B, C and D were marked for identification  
7 purposes.)

8 Q. So when I refer to those exhibits or vice  
9 versa, when I refer to the title, can we all -- do you  
10 understand what I'm going to be referring to, Mr. Noedel?

11 A. Yes, I do.

12 Q. Okay. Great. And you have those available to  
13 you at the moment?

14 A. I do.

15 Q. Okay. Fantastic. So let's take a look at  
16 Exhibit A, the notice of deposition, briefly to start with.  
17 I have a -- do you have that in front of you?

18 A. I do.

19 Q. Okay. I have appended a request for  
20 production of documents to this notice and I had previously  
21 propounded a request for production of documents early in  
22 the case on your counsel with respect to some of these. I  
23 understand, you know, I didn't ask that you produce these  
24 things today, but I'm going to ask that some of them be  
25 produced, you know, eventually in the expert discovery



1 period. So I just want to run down these, and they start  
2 in the middle of the first page and they're numbered at 1.  
3 Do you see where I'm looking?

4 A. Yes.

5 Q. Okay. The first is a complete copy of your  
6 file in this case. Do you -- did you keep a file in this  
7 case?

8 A. Yes, I did.

9 Q. Can you give me a summary of what's included  
10 in that file?

11 A. So I -- what I typically do not reproduce all  
12 of the data that's provided, I work from the original data  
13 that's -- that's provided. So in my case file are  
14 handwritten notes where I extract information from the --  
15 the data that's provided, diagrams, various -- various  
16 notations and things that I use or refer to later on, notes  
17 about the physical evidence examinations I conducted, so I  
18 have those kinds of written notes. I also have some  
19 extracts of key areas of some of the data from statements,  
20 for example, of players in this event. So that's what's in  
21 my -- in my bench notes. I also have -- those are my  
22 handwritten notes essentially. I also keep track of a lot  
23 of data and sort photographs using PowerPoint, but not as a  
24 traditional venue to present a show but simply to organize  
25 concepts and photographs, and when I find physical evidence

1 and data that supports a particular concept I can  
2 accumulate that in a PowerPoint. So I have the PowerPoint  
3 organization of data, which is similar to my bench notes.  
4 And then I do have, I did do some 3D scanning of a replica  
5 surrogate vehicle, I have the computer files of that 3D  
6 data in my -- in my notes or my folder. That's basically  
7 what -- what I have maintained in there. My agreement  
8 letter from counsel, what I have is called a client contact  
9 sheet that records when I was contacted and then billing --  
10 billing records. That's essentially everything that I have  
11 in my -- in my file, along with my reports.

12 **Q. Thank you. Do you keep that file**  
13 **electronically?**

14 A. It's a combination of both. There is an  
15 electronic file and then there are, the handwritten objects  
16 are in a manila type folder that I scan, when requested to  
17 provide I'll scan those into the -- into a computer data  
18 and then I can Dropbox or provide all of that data at once.  
19 So I have both computer files and handwritten physical  
20 notes.

21 **Q. Do you keep billing records as a part of that**  
22 **file in this case?**

23 A. Yes.

24 **Q. Do you keep correspondence with counsel who**  
25 **hired you as a part of the file in this case?**

1           A.     I -- I typically keep a lot of e-mails that  
2     are correspondence between myself and the client that's  
3     hired me, yes.

4           **Q.     Who did retain you in this case?**

5           A.     My recollection was that I was originally  
6     contacted by Elena Boop as counsel for the City of  
7     Cleveland or representing an insurance agency, but I think  
8     that's the actual attorney who -- who made initial contact  
9     and then I wound up meeting with other members of that  
10    team, some of whom are on this call.

11          **Q.     At what time did Ms. Boop first contact you,**  
12   **if you know?**

13          A.     It was, I was retained on May 13th of 2022.  
14    Typically that's not the first contact, so I'm not sure  
15    when she may have reached out. Usually I receive an e-mail  
16    or a phone call describing the case, am I available, do I  
17    have time to work on a particular case. Sometimes those go  
18    forward, sometimes they disappear, so I usually don't track  
19    the initial contact, it's more along the lines of when I'm  
20    retained on a case that I begin tracking that, and that was  
21    May 13th of 2022.

22          **Q.     Are there any other data that you reviewed in**  
23   **coming to your opinions in this case that are not contained**  
24   **in the present copy of your file?**

25          A.     Not that I can think of, no, I'm not aware of

1 any -- any additional data that's not in the file.

2 Q. The CV that we have from you in this case has  
3 on the bottom of it, and that's **Exhibit B**, if you have  
4 that.

5 A. Yes.

6 Q. Has on the bottom of it -- each page the words  
7 revision 2023 July 14.

8 A. Yes.

9 Q. Is that copy of the CV that we have still  
10 current?

11 A. It is, it is a couple of months behind, there  
12 are some additional testimonies and activities that are not  
13 yet recorded on that CV, but that is the current one that's  
14 been -- that's been updated as -- as of today.

15 Q. Can I ask that you provide an updated copy  
16 through counsel?

17 A. Sure, yeah, I can -- I can get -- get the CV  
18 updated when I have time and glad to provide the most  
19 current copy when it's available.

20 Q. Sure thing. As you sit there, do you know  
21 which testimonies in which cases would be not yet listed in  
22 the copy that we have of the CV?

23 A. I suspect, I don't know specifically, but I  
24 know I've had a couple of more depositions, I believe, that  
25 will be reflected on that between, I think you mentioned

1 July and November, I would have to go back through my  
2 calendar, but I would anticipate two or three more  
3 depositions and/or testimonies. And I don't think there's  
4 any new -- I'm trying to think of, I don't think there's  
5 any new training updates or presentations or publications  
6 in that time frame. So I think it would be primarily  
7 updating the last couple of months' worth of depositions or  
8 testimonies is all I can think of right now.

9 Q. Are any of the testimonies that you would be  
10 updating arising out of cases in Ohio, whether in state or  
11 federal court?

12 A. No.

13 Q. Have you ever been hired as an expert witness  
14 by the City of Cleveland before?

15 A. No.

16 Q. Have you been hired as an expert witness by a  
17 government or municipality in the state of Ohio before?

18 A. Yes, I have.

19 Q. Can you tell me about the instances where  
20 you've been hired by a government in the state of Ohio?

21 A. Yes, I can -- I can think of three, I think  
22 there are three cases that -- that I've been retained on  
23 and worked on in the past in Ohio. Testified in Columbus,  
24 Ohio in federal court, I think there were two different,  
25 there maybe was only two, two different officer involved

1 shooting incidents where I was retained by the attorneys  
2 representing the defendants in those cases. And there's --  
3 there's two that I can -- that I can recall and there might  
4 be a third, I would have to -- I would have to check my --  
5 some of those cases drug on for quite a long time.

6 **Q. Can you tell me about the two cases that**  
7 **you're presently recalling?**

8 A. Yeah, sure. One of them was in Columbus,  
9 involved a police officer who shot a young man after an  
10 armed robbery, there was a pursuit, the suspect was running  
11 across a parking lot and produced a firearm and a police  
12 officer shot and killed the suspect. That was one of them.  
13 Another was in Columbus, again in Columbus, Ohio, police  
14 officers on patrol in a community observed a man brandish a  
15 firearm, confronted the man and a shootout between the  
16 officers and the man with the firearm ensued and that  
17 resulted in that man's death. Both of those were  
18 fatalities that were caused by law enforcement in Columbus.

19 **Q. In both of those cases, was it the City of**  
20 **Columbus Law Department that hired you?**

21 A. I don't recall if it was the City, I think in  
22 one instance, in the first instance I think it was the City  
23 that retained me. And the other one may have been an  
24 insurance company that was associated with the law  
25 enforcement agency, something like that, without digging

1 out the actual contracts, I'm not sure.

2 Q. Fair enough. In the first case that you just  
3 described, do you recall the name of that case?

4 A. No, but if I refer to my -- it might be on my  
5 CV even -- even the one you have. Would you want me to see  
6 if I can --

7 Q. Sure, we can, yeah, take a quick look at the  
8 CV, **Exhibit B**. Testimonies begin on page 19 of 36 of that  
9 document.

10 A. So one of them is -- was called Adrienne Hood  
11 versus City of Columbus, that's how I've recorded it.

12 Q. And the Hood case was the second case that you  
13 just described, is that correct?

14 A. It could be, I would have to look up all the  
15 names and the data connected to them. The other one, I  
16 don't recall the name of that case and I'm not sure I ever  
17 -- I may have been deposed but not testified, I don't see  
18 it referenced here. I want to say maybe King, an officer  
19 involved shooting that involved the name King, but I'm not  
20 sure, I would have to check. If you want, I can look up  
21 what those cases were.

22 Q. That would be great, but we don't need to do  
23 that right now as we sit here, but I would appreciate that.  
24 And I do want to ask about the testimony that you provided  
25 in those cases, so if maybe later on a break if you want to

1 refresh your memory it would be a more appropriate time to  
2 do that.

3 A. Okay.

4 Q. Would that work? Okay. We'll come back to  
5 that. The CV that we do have, Exhibit B to the deposition,  
6 also lists your publications and presentations. Is that a  
7 complete list to date?

8 A. Yeah, as I sit here right now I don't recall  
9 any new presentations or publications coming out in --  
10 since July. So I think that the listing there is up to  
11 date.

12 Q. Are there any publications that are listed  
13 there that you specifically relied upon to arrive at any of  
14 your opinions in this case?

15 A. Not -- not specifically for this case, no.

16 Q. Are there any other publications not produced  
17 by you that you specifically relied upon as references to  
18 produce your opinions in this case?

19 A. Well, I may have referred to textbooks on  
20 shooting incident reconstruction, for example, the book by  
21 Lucien Haag, H-a-a-g, shooting reconstruction textbooks,  
22 shooting scene reconstruction textbooks, I may have  
23 referenced those in looking up some of the data. But other  
24 than -- other than the general knowledge that might be in  
25 those, I didn't rely on any of those or any published



1 material to specifically evaluate this case.

2 Q. Understood. Do you consider Haag -- never  
3 mind, let's move on. So I'm going to put away for now  
4 Exhibits A and B, the notice of deposition and the CV and,  
5 like I said, we can come back later to discuss those two  
6 Ohio cases that you recall, if you end up recalling whether  
7 there was a third or whether there are any others, will you  
8 just let me know?

9 A. Sure.

10 Q. Okay. Thank you. So what I would like to do  
11 now, I have, like I said, marked your preliminary report  
12 Exhibit C and the rebuttal report that you produced Exhibit  
13 D and I'm really just going to march through those and talk  
14 with you about them.

15 A. Okay.

16 Q. So if you want to -- if you're able to pull up  
17 Exhibit C first.

18 A. Yes, I have a hard copy in front of me.

19 Q. Okay. Great. Looking first at the page 1 of  
20 17 of this report, there are a couple of paragraphs of text  
21 before the subsections start with subsection background.  
22 Do you see where I'm looking, those initial paragraphs of  
23 text?

24 A. Yes.

25 Q. Okay. Does the second paragraph there express

1 **your methodology?**

2 A. In -- in a very minor way I would say it  
3 describes the methodology by using the phrase commonly  
4 accepted forensic methods, so that, again, ties back to the  
5 various education and training and background that I have,  
6 so I'm using those methods as long -- as well as the  
7 scientific method to evaluate the various aspects of this  
8 event.

9 **Q. Can you explain in a little more detail what**  
10 **the particular methodology that you used here was?**

11 A. Sure. So in approaching a shooting incident  
12 reconstruction I try to break down the events into  
13 basically questions that may be useful in evaluating the  
14 event. In the scientific form the questions would be  
15 considered a hypothesis, so make a statement and then find  
16 data to support or refute that statement, and in going  
17 through that process, that's where I begin to organize  
18 things in a PowerPoint. I can find -- I look for and see  
19 if I can find data to substantiate the hypothesis or reject  
20 the hypothesis or is the result inconclusive or does the  
21 process, does the question need to be reworked. And so  
22 basically that's the methodology in going through, so I  
23 start by reviewing what's being said about an event, I  
24 catalog what kind of evidence, what pieces we have, I  
25 sometimes call them landmarks that have to be met in order

1 for the entire event to play out, so those are the physical  
2 aspects of a -- of a scene. And so in going through that  
3 process I then begin to test various scenarios as -- as are  
4 posed in either interviews or statements or anything that  
5 claims a witness statement or, for example, Officer  
6 Garcia's interview information, and test what's being said  
7 and that forms the basis of what I -- what I ultimately can  
8 report on and how I generate the report. So that's --  
9 that's the method I follow in doing a shooting incident  
10 reconstruction and generally follows the scientific method  
11 for discovery.

12 **Q. Is what you've done to express your opinions**  
13 **in this case what you're referring to as a shooting**  
14 **reconstruction, shooting scene reconstruction?**

15 A. Yes.

16 **Q. Okay. Is that what you were asked to do by**  
17 **counsel that retained you in this case?**

18 A. Yes, the question was, what -- can I do an  
19 incident reconstruction or scene reconstruction or, in this  
20 case, it's a shooting, so a shooting scene reconstruction,  
21 yes.

22 **Q. What does a shooting scene reconstruction**  
23 **typically involve?**

24 A. Guns. So part of my process, part of my  
25 methodology is looking for some of these key things that

1 are common to all shooting incident reconstructions. If  
2 it's a shooting incident such as this, there's gun, a gun  
3 or guns involved, so one of the things I start to look for  
4 is cataloging what the year -- the make and model of  
5 firearms that are present, how they're loaded, how they  
6 function, I may not have to physically write down things  
7 like how a Glock pistol functions, but I want to know what  
8 brands of guns, what types of ammunition are employed in  
9 this, and so I begin to catalog those types of things. My  
10 method then goes from, once I know what kind of guns and  
11 ammunition are involved, can I track a discharge of a gun  
12 from the time the trigger is pulled through the end point  
13 of that single discharge, so that's going to involve  
14 pulling a trigger to cause the gun -- the round, the  
15 cartridge to fire, the bullet goes down the barrel on its  
16 way and just after that, in semiautomatic pistols, such are  
17 represented here, the cartridge case is expelled. So I'm  
18 looking at each one of those elements and everything that  
19 occurs to cause those elements to see what, if anything, I  
20 can figure out from that. So for each cartridge case there  
21 should be an expelled bullet and the path that the bullet  
22 traveled, and so that's what I try to research and find out  
23 in my methodology, can I track a particular shot, and if  
24 there's multiple shots, can I do that for each shot that is  
25 known to have been delivered or that I have evidence of.

1 And in doing that, once I catalog the -- which firearms are  
2 available, the performance of each firearm and what the  
3 physical, again, I call them landmarks are in the scene,  
4 then I can begin to use that data to test various  
5 statements or theories about the case. And so that's --  
6 that's kind of how I -- how I proceed in a shooting  
7 reconstruction by defining those landmarks, figuring out  
8 what I can from that data and then further testing any  
9 questions that may come up in the statements or witness  
10 information.

11 **Q. That kind of shooting scene reconstruction**  
12 **that you just described, about how many times have you**  
13 **performed such a reconstruction in your career?**

14 A. I would estimate about 4 or 500 times, I work  
15 about -- I work about 40 or 50 cases a year, I've been an  
16 independent consultant for 18 years and I was with the  
17 state patrol for 15 years prior to that. The state patrol  
18 was fewer reconstructions, now as a private consultant I do  
19 more reconstructions, so ballpark it, that's 4 or 500 I  
20 would say easily in going through that process and trying  
21 to track the performance of bullets and firearms and  
22 ballistic components in a scene. And of course every --  
23 not every case I work winds up going to court or being  
24 deposed, and so many cases are resolved prior to that, so  
25 I've worked a lot of cases, somewhere in the order of that

1 I think is reasonable, 4 or 500 certainly in my career.

2 Q. In your career outside of law enforcement,  
3 since you've been a contractor, that's been since, is it  
4 2009?

5 A. 2000 and, wait a second here, 2005.

6 Q. That's right, 2005.

7 A. Yeah.

8 Q. Has that been all you've done professionally  
9 since 2005?

10 A. That's correct, the only -- the only  
11 profession and the only -- the only career that I have been  
12 working as.

13 Q. So in the course of that career, since 2005,  
14 you've done hundreds of these shooting scene  
15 reconstructions, right?

16 A. Yes.

17 Q. Okay. Is the shooting scene reconstruction  
18 the main thing that you do as a consultant?

19 A. Yes, I would say that's my primary specialty,  
20 and I still maintain expertise in the mechanical  
21 examination of bullets, cartridge cases and firearms  
22 through my professional organizations, but the mechanical  
23 second opinion, for example, through the microscope  
24 comparison is a lesser part of my business, although I  
25 still provide that. And the other big area that I maintain

1 expertise in is in blood stain pattern analysis, and that's  
2 because most of the shootings that I get involved with  
3 reconstructing also have a component of blood letting or  
4 blood stains, and so I consider those my two strongest,  
5 most requested areas is shooting incident and blood stain  
6 pattern analysis.

7 **Q. Okay. Shooting incident, blood stain pattern**  
8 **analysis are the two key areas that you provide**  
9 **consultation on, and then mechanical analysis is the third?**

10 A. Yes, lab, I would call, I'm sorry to  
11 interrupt, I apologize, I would call it laboratory  
12 ballistics, you know, the physical microscopic comparison  
13 of bullets, cartridge cases and the evaluation of those  
14 components. I also do a fair amount of teaching various  
15 topics in shooting incident reconstruction, primarily  
16 shooting incident reconstruction.

17 **Q. Are there any other areas besides laboratory**  
18 **ballistics, shooting reconstruction and blood stain**  
19 **patterns in which you are qualified in your view to provide**  
20 **expert testimony?**

21 A. I do some work in general crime scene  
22 reconstruction, for example, a stabbing that might have a  
23 component of blood stain pattern analysis might be  
24 something I get involved with, but that's relatively rare,  
25 I do a couple of non-shooting events a year maybe, two or

1 three scene reconstructions that do not involve the  
2 discharge of a firearm, so that's a relatively minor  
3 component, but I will -- I will provide opinion about other  
4 -- other scenes to the extent that I can provide  
5 reconstruction value to them.

6 **Q. Understood. Anything else that we've missed,**  
7 **any other type of expertise or consultation that you**  
8 **supply?**

9 A. No, I think we've mentioned everything that I  
10 do in my business.

11 **Q. Between that laboratory ballistics, scene**  
12 **reconstruction and blood stain patterns sort of fields,**  
13 **which of these have you applied in this case?**

14 A. I would say this case has components of all of  
15 those elements, the main component is the shooting incident  
16 reconstruction, but in this case there is also a component  
17 of blood stain pattern assessment and there's also a  
18 component of ballistics, looking at the performance  
19 projectiles and documenting how projectiles performed in  
20 this environment. So it -- it basically encompasses three  
21 of the four, if I take out general scene reconstruction, I  
22 didn't really consider it in terms of a -- of a general  
23 scene, I considered it in terms of a shooting scene that  
24 also had elements of blood stain pattern, and in my  
25 shooting scenes I often like to evaluate the projectiles



1 and the physical evidence to look at the performance of  
2 projectiles, not only that they've been fired, but what did  
3 they hit, what is the interpretation of how the bullets  
4 performed, interpretation of how the cartridge cases  
5 landed, so this has components of those three topics.

6 **Q. In terms of how -- how the mechanics of how**  
7 **the bullets, you say, performed bear upon your opinions for**  
8 **the shooting scene reconstruction, generally speaking, not**  
9 **just with respect to this case?**

10 **A.** So bullet performance is, in my view, a very  
11 underdeveloped, underutilized, it's not underdeveloped, but  
12 it's certainly underutilized component of accident  
13 reconstruction, and by examining how a bullet performs on  
14 impact can tell you quite a bit about what that bullet's  
15 history was. So, for example, a bullet that goes through  
16 glass often retains glass embedded into the surface,  
17 sometimes you'll have a hollow point bullet designed to  
18 expand on impact that does not expand, so then that leads  
19 to more investigative questions, why did this not expand,  
20 was this a ricochet, was the bullet under powdered with not  
21 enough gunpowder or something along those lines. So by  
22 examining the bullets it informs something about the  
23 history of that bullet and then that can be applied, as the  
24 reconstruction builds you can apply the performance of a  
25 bullet with bullet paths that you know exist and then try

1 to organize that data among others. Sometimes a bullet  
2 examination, just the performance of a bullet will allow  
3 you to eliminate it as causing some other event, for  
4 example, a bullet, I'll use this case as an example, a  
5 bullet that strikes but does not exit cannot go on and hit  
6 another object, so if you have objects that are struck you  
7 can take the bullet that is -- that cannot go any further  
8 because it's embedded in a surface or in a person and take  
9 that out of the -- out of the equation, and then you have  
10 the other bullets to consider, which ones performed to  
11 create these holes. Bullets often retain angles and  
12 dimensions and shapes that are commensurate with what they  
13 struck and how they hit a surface, so that's what I mean by  
14 bullet performance, did it collect trace evidence, did it  
15 perform as designed, is it a complete bullet or a partial  
16 bullet. Oftentimes if we're looking at a portion of a  
17 bullet the obvious question becomes where did the rest of  
18 it go and so that's part of the -- the triage process in  
19 reconstruction, understanding how the projectiles perform  
20 to be able to backtrack them through the gun and then  
21 evaluate ultimately the entire path that that bullet  
22 traveled.

23 Q. What about blood stain pattern evidence, how  
24 does that generally bear upon or help you evaluate a  
25 shooting scene reconstruction?

1           A.       So using the commonly accepted nomenclature  
2 and processes in evaluating blood stains, you can catalog  
3 different shapes and patterns of blood stains and that can  
4 assist, along with the other information, the  
5 reconstruction efforts, for example, there is a category of  
6 blood that is connected to high energy spatter, small  
7 collection of multiple blood droplets, depending on where  
8 that spatter is located might inform you if a person was  
9 standing when a gunshot arrived or lowered when a gunshot  
10 arrived. There's a form of blood stains called drip  
11 trails, so, for example, if a person is injured and then  
12 they continue to travel, you may be able to track the drip  
13 trail. So it becomes another component that's often  
14 connected to a wound, it's caused by a wound of some sort  
15 and we know that ballistic events, firearm related events  
16 often create blood producing wounds, and so it becomes a  
17 result of a bullet path that may inform additional  
18 information about the circumstances of the case.

19           Q.       Looking back to your report, **Exhibit C**, also  
20 in those first couple of paragraphs here you say that the  
21 evidence -- I'm sorry, the opinions are provided to a  
22 reasonable degree of scientific certainty, correct?

23           A.       Yes.

24           Q.       So this is scientific expertise that you are  
25 -- scientific opinions that you're expressing in this case?

1 A. Yes.

2 Q. Looking down to where the subsections begin at  
3 the bolded text background, the two paragraphs under  
4 background looks like contain the factual assumptions that  
5 you're using for the -- as the bases for the report, am I  
6 correct?

7 A. Yes, what I try to include in the background  
8 is uncontested information just to set the table of what  
9 the reconstruction is going to involve, it identifies  
10 things like the names of people, that a car is involved or  
11 multiple cars, in this case two cars are involved, and that  
12 it's a -- it provides the context for the setting in which  
13 this occurs, so. I try to keep -- I try not to include any  
14 kind of opinion or interpretation of it, just physically  
15 what is undisputed and is known to have occurred.

16 Q. Okay. In your view the background section is  
17 based only upon undisputed facts?

18 A. Yes.

19 Q. What is the source material that you use to  
20 base that section upon?

21 A. So typically this information comes from the  
22 initial police reports and things like the event case  
23 number, the date that it occurred, some of the mechanical  
24 situations are presented in police reports, summaries of  
25 the initial event, and then typically it's supplemented

1 with photographs, someone reports that there's a red Ford  
2 and then sure enough there's photographs to support that  
3 that's a red Ford in this event, so reports and photographs  
4 are the primary source of obtaining the background  
5 information.

6 Q. And that's what you used in this case as well?

7 A. Yes.

8 Q. Is everything that you referred to as source  
9 material for the report listed on page, beginning on page  
10 15 of the report?

11 A. Yes.

12 Q. Is there anything else, as you look at this  
13 from page 15 to 17, that you consulted but that is omitted  
14 from this list?

15 A. No, that's a comprehensive list from the  
16 information that I relied upon.

17 Q. Looking now to the subsection entitled in bold  
18 examination and results beginning on page 1 and coming over  
19 to page 2, you, it looks like, viewed what you call  
20 replicas of the two vehicles at issue in this case, is that  
21 right?

22 A. One of the vehicles, the --

23 Q. One, I'm sorry.

24 A. I found a surrogate or a replica, same year,  
25 make and model of the Ford that had the bullet -- the

1 bullet impacts documented to it, on October 8th I located a  
2 replica car and then I made a 3D model of that car by using  
3 a terrestrial laser scanner and capturing all the  
4 dimensions of that. By using that surrogate car of the  
5 same year, make, and model, it gives me some of the  
6 dimensional aspects of that vehicle which typically are  
7 useful in reconstruction to have something to scale that  
8 represents the actual vehicle.

9 **Q. So you looked at and created this**  
10 **approximation of a replica car of my client's car, right,**  
11 **Desmond Franklin's car in the case?**

12 A. Correct, just the Ford Taurus is the only car  
13 that I -- that I scanned, that I documented.

14 **Q. Why didn't you create a replica or document**  
15 **the other car, the car that the officer was driving?**

16 A. Because it only had one bullet defect in it.  
17 I could have tried to do that but I wanted to try to model  
18 the Ford that received the bullet impacts and then I can  
19 always find a model to represent -- the dimensions of the  
20 -- of Garcia's vehicle are less important to me in the  
21 reconstruction than the car receiving them, the Ford, from  
22 Franklin's Ford because we know the shots originated from  
23 the Garcia vehicle and went to the Ford vehicle, so whether  
24 the replica car was a little higher, little lower is not  
25 going to matter, I'm more interested in what was impacted

1 by Garcia's bullets, so that's why, that's why I did the  
2 Ford and not -- didn't create a 3D model of the Garcia  
3 Honda.

4 Q. And you had to do the modeling because neither  
5 vehicle was available to you for actual inspection,  
6 correct?

7 A. That's correct.

8 Q. Would you rather have had the vehicles  
9 available to you for inspection?

10 A. Yes, I would -- I would always prefer the  
11 actual exhibit than a surrogate replica.

12 Q. Did you understand when you were evaluating  
13 this case what happened to the actual vehicles in the case?

14 A. It's my understanding that they were -- were  
15 released or destroyed, I don't know which, or released then  
16 destroyed, I only recall being told that they were not  
17 available for further examination.

18 Q. Did you do anything to try to replicate or  
19 evaluate the bullet strike that did go through the mirror  
20 of Garcia's car?

21 A. Yes.

22 Q. Can you tell me about that?

23 A. So once I have the Ford modeled and I can  
24 evaluate the bullet strikes that were documented in the  
25 photographs and the reports from the original processing

1 that was done, I can extend those bullet tracks and then  
2 put a surrogate Honda adjacent to those and evaluate how  
3 those two line up such that a projectile can travel from  
4 the Garcia model into the Franklin model vehicles. And so  
5 in doing that process, I can align the angle that was  
6 photographed through Garcia's mirror with the continuation  
7 of bullet tracks that I know struck the Ford, and so then I  
8 can move the cars forward and backwards in the 3D  
9 environment on the computer until I find a position that  
10 approximates where the angle through the mirror also  
11 matches the angle represented in the car door, so that was  
12 one of the exercises that I did using 3D data.

13 **Q. And, sorry, it's obvious I'm not a scientist,**  
14 **how did you get the Honda model then if you didn't go and**  
15 **take the replica, how did you --**

16 **A.** I simply incorporated -- fair question, I  
17 incorporated the dimensions of the Honda and then took a  
18 generic sedan from the 3D -- from the 3D tools that are  
19 available, there's all kinds of drop-downs, you can add  
20 another car, I just found a model and I scaled it to the  
21 proper size of a Honda Accord or, I've forgotten if this is  
22 -- Accord, scaled it so that the length and width are  
23 appropriate for that -- for that model and then move that  
24 alongside the 3D scan to scale that I took and aligned them  
25 that way. So it was a surrogate model of a Honda, it was



1 just not the same -- it may not have been the same year,  
2 make and model, but in the 3D environment I can scale it to  
3 the right length of the same year, make and model.

4 Q. And you used those approximations of those  
5 vehicles in the -- when you say 3D environment, that's  
6 inside a computer program that you use, is that correct?

7 A. That's correct. It's within the 3D  
8 environment I can do that from my office so that -- that is  
9 work that I can do without having to actually be on scene  
10 and troubleshoot the various angles and bullet paths that  
11 are represented.

12 Q. Is there a name for that program?

13 A. The program I use is called Scene, S-c-e-n-e,  
14 and it's a proprietary program that comes with the 3D  
15 scanner that I use, and so I work -- I work within the  
16 program. So the scan data is acquired by the instrument  
17 and Scene is the software that runs the 3D modeling.

18 Q. What kind of instrument is that, does that  
19 have a manufacturer?

20 A. Yeah, Faro, F-a-r-o, X330, and generically  
21 it's considered a terrestrial scanner, so it's a 3D laser  
22 scanner called Faro, F-a-r-o.

23 Q. Cool.

24 A. Yeah, it is very cool.

25 Q. As part of that analysis, did you scan the

1 exterior of the surrogate for Desmond's car, or, I'm sorry,  
2 the interior of the surrogate for Desmond's car?

3 A. Yes.

4 Q. Did you approximate the dimensions for the  
5 interior of the surrogate you made for Garcia's car?

6 A. Not -- not for the interior, no. The model --  
7 the model that I used for the Honda I simply made the  
8 length, width, and height the appropriate size for a Honda  
9 of that year, but I didn't -- it's an opaque model so I  
10 can't even see inside the Honda model, it's simply a shape  
11 of a vehicle that has the dimensions of the Garcia vehicle.

12 Q. So in looking at the model of the Garcia  
13 vehicle surrogate, you didn't evaluate, for example, where  
14 the driver's seat is with respect to the other items inside  
15 the car?

16 A. Correct, that -- I didn't make an effort to  
17 try to replicate the position of the seat or the position  
18 of the steering wheel or anything like that in the Garcia  
19 vehicle.

20 Q. Did you consider whether that vehicle was a  
21 manual shift vehicle?

22 A. I don't recall thinking or considering  
23 anything about that.

24 Q. For the model that you used to approximate  
25 Desmond's car, what, if anything, was relevant to you about

1     **the dimensions of the inside of the vehicle?**

2           A.     Nothing in particular.  Nothing -- nothing  
3     stood out, it was a typical Ford -- a Ford interior  
4     vehicle.

5           Q.     So you just -- you got the data for the inside  
6     of the vehicle just because you were there, it wasn't  
7     necessarily because it was --

8           A.     Correct, I had one opportunity at the  
9     surrogate vehicle so I scanned the entire exterior and then  
10    I also took scans of the interior to try to fill in, in  
11    part so that it looks like a complete vehicle without blank  
12    spots, if I don't scan the interior then you can see right  
13    through the floor and into the ground underneath and it's a  
14    distracting view, so I document the interior as well so  
15    that we know the alignment of the steering wheel, what the  
16    dash looks like.  But I didn't -- I didn't do any  
17    measurements or anything specifically to try to figure out  
18    how far it is from the -- for example, I could measure from  
19    the center console to the side door, all of those  
20    measurements would be -- are captured in the 3D data, so  
21    that's one of the values of the surrogate model is I don't  
22    know if those values are going to come into play and be  
23    used by me, and in this case generally they were not,  
24    physical measurements were not important in my assessment,  
25    but when I had an opportunity to capture those measurements

1 and dimensions, I grabbed them.

2 Q. For your purposes in making your report, what  
3 was the point of creating these approximations of these two  
4 vehicles?

5 A. So one of the things that I like to include in  
6 my reports, I like to include visuals, some of the physical  
7 descriptions of ballistic events and bullet trajectories  
8 and horizontal and vertical angles are hard to follow when  
9 it's just a written report, so if I have a model that I can  
10 overlay bullet paths, a model that I can cut the roof off  
11 of or something like that, now I can discuss the properties  
12 of the bullet paths or the bullet performance and show the  
13 model to scale of what that looks like, where that would be  
14 and so I'm preparing that in the event that I may need to  
15 describe this or, of course, I assume, which is why I keep  
16 a case file, I assume every case I work is going to  
17 ultimately wind up in court somewhere and so that's --  
18 that's part of this, I prepare those kinds of models and  
19 diagrams so that they are ready if they're ever needed.

20 Q. Okay. So these models that you created of  
21 these vehicles, you did that to create a visual aid?

22 A. Correct, correct, yeah. They were not used,  
23 for example, to measure an angle, the angles were derived  
24 from other data and then applied to the model, the model  
25 was not -- it wasn't the reverse where I used the model and

1 said, therefore the angle must be this or that. But where  
2 the model is useful, for example, on the Ford that has  
3 multiple bullet strikes, I can position, based on the  
4 photographs and the physical measurements that were  
5 captured, I can reposition those bullet holes in the model  
6 and then I know that those are accurate to where a Ford  
7 Taurus Limited, where the door seams are and how the  
8 pillars are built and the dimensions of a window, for  
9 example, I've captured all that data to scale so that I can  
10 track the bullets into it and that's -- that's part of --  
11 part of it too, so it's to document demonstratives in the  
12 future and to be able to visualize this, when I put the  
13 bullet paths all together and I can move the model all  
14 around in different orientations, what does it show me,  
15 what do I see, what interpretation and value does that  
16 have, that's kind of my end game in conducting that kind of  
17 a modeling and that kind of an assessment. I don't 3D scan  
18 every scene, but I use it quite frequently and most --  
19 nowadays a lot of law enforcement uses that, it's really  
20 gained popularity in the last four or five years, 3D  
21 modeling of a scene.

22 Q. Had you had access to the actual vehicles in  
23 this case, you could have evaluated the bullet trajectories  
24 in person using those vehicles?

25 A. That's true.

1           **Q.       Here the modeling that you used is not the**  
2           **basis for the opinions you reached, correct?**

3           A.       No, the basis of the opinion is generated  
4           first based on the documentation and the photographs that  
5           are recorded about the actual vehicle, then that  
6           information is translated on to my surrogate vehicle so  
7           that I can observe it, so the process is identify the  
8           bullet tracks first and then apply them on the model so  
9           that I can look at that in different orientation.

10          **Q.       You also, turning back to page 2 of 17 of the**  
11          **report at the top, viewed the scene of the shooting,**  
12          **correct?**

13          A.       Yes.

14          **Q.       What, if anything, did that do for you to form**  
15          **a basis for your opinions?**

16          A.       So what I like about visiting the actual scene  
17          is it gives me a realtime, a real spatial dimensions of how  
18          far things are apart and how busy, for example, the road  
19          is, things that are not necessarily captured in a static  
20          map. And so, for example, in this event, of course when I  
21          was there the fence had been repaired, but you could find  
22          some of these landmarks, the signs that were still there  
23          when I visited that are also captured in the original scene  
24          photographs, and so it gives me an idea of the scale and  
25          dimension, just the environment, the traffic that's around,

1 certainly distances, I walked from the convenience store  
2 almost not quite to the highway but found the place where  
3 the fence was repaired and it just enables me to see the  
4 environment. Photographs and maps often don't capture the  
5 scale or perspective that a scene has, sometimes it's a lot  
6 bigger than it seems or smaller than it seems. I don't  
7 recall my impression of this, but when I had the  
8 opportunity as I was in Cleveland I just wanted to be able  
9 to say I had seen the location where the shooting occurred.

10 **Q. So you came to look at the evidence in the**  
11 **case and you also went and looked at the scene?**

12 A. Correct.

13 **Q. It gave you some context?**

14 A. Absolutely, yes.

15 **Q. Do you remember what time of day you went and**  
16 **looked at the scene on Pearl Road?**

17 A. My recollection was it was prior to my  
18 appointment to view the physical evidence, so I'm  
19 estimating that I was on that scene maybe at 9:00 or  
20 10:00 a.m.

21 **Q. A different time of day than the shooting, but**  
22 **still a daytime?**

23 A. Yes, it was daylight, it was daytime, and,  
24 again, it was not to measure the width of the road or  
25 anything like that, it was just to visualize the actual

1 environment.

2 Q. Do you remember the traffic on Pearl Road?

3 A. A little bit, sure.

4 Q. What kind of traffic was it, if you recall?

5 A. It was -- I would -- I would estimate it as  
6 very average, there were no real backups, you know, at the  
7 stoplights in the area, cars would stack two or three deep  
8 maybe before they would get the light and move on, so I  
9 don't consider that heavy, I consider that normal traffic  
10 flow, so it was not rush hour or there was not any kind of  
11 backup that I was aware of. I recall it being a four lane  
12 road, so as a four lane road there's -- it's prepared to  
13 handle some volume, so, but it was very average.

14 Q. There's construction right now so there's a  
15 huge jam up right there on Pearl Road, it's really  
16 horrible. But it wasn't like that that day, it was normal?

17 A. I don't recall any construction anywhere  
18 between the convenience store and the highway, there might  
19 have been something on the on ramp, starting on the  
20 highway, but it was not backed up when I was there that I  
21 recall.

22 Q. So we're still in this section under  
23 examination/results, that's the subheading where it starts  
24 on page 1 and goes through page 2 of the report, and is  
25 that, you know, when you say examination/results as the



1     **subheading, what is contained in this portion of the**  
2     **report?**

3           A.     So the reason that's a dual heading is because  
4     with the evaluation of -- I find that with the evaluation  
5     of ballistic events and shooting reconstruction events,  
6     disengaging the result from the -- from the examination is  
7     sometimes more confusing then including them together. So,  
8     for example, a gun that was loaded in a particular way,  
9     well, the result is how it was loaded, the exam is there's  
10    a -- a Glock pistol, and so rather than separating that I  
11    combine the whole heading and then I try to use subheadings  
12    to describe each of the -- each of the, again, I'll use the  
13    word landmarks or elements that I want to establish so that  
14    I can then do, troubleshoot the scene further. So I  
15    combine those two to make the report -- I think makes the  
16    report clear by including some of the results of the  
17    observations or documentations, for example, about a gun,  
18    about a car or something like that.

19           Q.     And when you say results in this context, what  
20    does that mean for you?

21           A.     Well, a result could be the position of fired  
22    cartridge cases, that a collection of cartridge cases, for  
23    example in this case, five fired cartridge cases were found  
24    inside the Garcia's vehicle. That's an observation, that's  
25    an examination observation, but the result is that the gun

1 was discharged in and around -- in or around that vehicle,  
2 which, of course, fits with the rest of the reconstruction.  
3 So a result is that the physical evidence supports being --  
4 the gun being discharged from a position near the driver's  
5 seat. The exam is that there are five cartridge cases in  
6 there. So marrying those two together, an exam and a  
7 result, allows me to digest, just as cartridge cases, those  
8 make sense for what's being claimed in this event.

9 Q. I see. And in this section you express those  
10 two things, the examination and the result, as to each  
11 landmark or important element that you, you know, view as  
12 important for the scene reconstruction, is that fair?

13 A. Correct, yes. I'm trying to establish  
14 landmarks that I may or may not draw, you know, be able to  
15 draw information from later to support or refute a  
16 particular concept.

17 Q. Understood. So we spoke about the vehicle  
18 reconstruction and the scene viewing. Now we're moving on  
19 to the subheading in italics, Officer Garcia data. What is  
20 the basis that you use as source material for the findings  
21 under Officer Garcia data?

22 A. Police reports and photographs.

23 Q. Okay. So under the first bullet point here,  
24 there are two bullet points, first bullet point you say,  
25 this supports or you make a finding that Officer Garcia

1     **fired five times. That's not really in dispute, right?**

2           A.     Correct, I don't believe that's in dispute.

3           **Q.     Right under that, the second bullet point, you**  
4     **say, "This supports all five of his fired cartridge cases**  
5     **ejected into the interior of the vehicle he was driving."**  
6     **Can you tell me the specific basis for that conclusion?**

7           A.     Yeah, so I mentioned earlier that in part of  
8     my -- my method, my process is to try to track the  
9     performance from the time a trigger is pulled all the way  
10    through the entire performance of that particular shot  
11    cycle. In a semiautomatic pistol, like what Officer Garcia  
12    had, some of the energy of each individual shot extracts  
13    and ejects the cartridge case, and ejection pattern  
14    analysis is one subdiscipline within shooting  
15    reconstruction that I study and consider in this event. So  
16    that all the cartridge cases ejected into the car where  
17    they were ultimately recovered, according to police reports  
18    and scene photographs, tells me that the ejection port of  
19    his pistol is in a location or a position such that the  
20    cartridge cases can come back into the car, that is,  
21    they're not going over the top of his car as if the gun was  
22    extended out of the window a long way at the time it was  
23    fired, it's they're being ejected back into the car, and so  
24    that is one aspect, and I can marry the ejection pattern  
25    with the path the bullet takes and kind of trap that gun in

1 various positions between ejecting into the car. Now  
2 ejection patterns into vehicles are difficult because they  
3 will almost certainly be intercepted by the roof and the  
4 dashboard and the chairs, they can fall off of chairs, they  
5 can bounce off of a seat on to a floor, they can  
6 subsequently roll under, so inside a vehicle you can't  
7 really position things on the -- from the ejection pattern  
8 itself, but certainly all five of his cartridge cases wound  
9 up inside his vehicle, so he has a shooting profile that  
10 enables that ejection, that type of ejection from his gun.

11 **Q. Assuming that, that all five car triages are**  
12 **found inside of the vehicle, what exactly does that tell**  
13 **you about the position of the gun when he was shooting it,**  
14 **if anything?**

15 A. It's that it was near -- that it was inside or  
16 near the vehicle, near an opening to the vehicle for them  
17 to be inside the vehicle means that they were either  
18 discharged within the confines of the vehicle or the gun  
19 was close enough to the exterior of the vehicle that the  
20 cartridge cases flew back inside the vehicle. So it gives  
21 me some limitation as to that he was, in fact, shooting  
22 from -- from the driving position, as was claimed, and it's  
23 -- that is, I would say that concept is supported by the  
24 physical evidence, because the ejection pattern is  
25 predictably to back toward the position of the shooter, and

1 of course, I -- I'm also marrying, it's not that  
2 observation alone that I consider, I'm marrying that to the  
3 path that the bullets took. So I'm evaluating the position  
4 of the gun based on bullets going one direction and cases  
5 going the other, and it's that process that enables me to  
6 localize the gun in a particular area.

7 **Q. Based upon the ejection pattern and the bullet**  
8 **paths, you believe that Officer Garcia was, in fact, in the**  
9 **driver's seat driving the car when he was shooting,**  
10 **correct?**

11 A. That's correct.

12 **Q. And you believe that the gun, as it was being**  
13 **shot, was either inside or somewhere close to the vehicle,**  
14 **correct?**

15 A. Correct, and to further combine that with him  
16 operating the vehicle in the driver's seat, we can still  
17 limit his -- the position that he can achieve, his arm's  
18 length and, of course I don't -- I don't know his arm's  
19 length, but if he's an anatomically normal human, it's just  
20 within a couple of feet of the side of the door, so that is  
21 an area that he could eject from. So they're -- not that  
22 there were any claims that he got out and shot outside of  
23 the car or anything like that, but that supports that  
24 aspect of the shooting, that the ejected cartridge cases  
25 and the angles of the shots into the Ford are consistent

1 with him operating the vehicle while he's shooting.

2 Q. Based upon this data, the gun could have been  
3 sticking some way out of the window or out of the car,  
4 right?

5 A. Yes, yes, ejection -- ejection from a  
6 semiautomatic pistol, such as a Glock that he's carrying,  
7 tries to eject to the right and rear, so if he's extending  
8 his arm out of the -- out of the driver's window and  
9 pointing it in the direction where his bullets struck, I  
10 expect the cartridge cases to eject back toward him, so the  
11 gun can physically be out of the window and still eject  
12 back into the car.

13 Q. Okay. So the gun could be partially outside  
14 or all the way outside of the car, just not very far away  
15 as though he ran out of the car, correct?

16 A. Correct.

17 Q. In this case did you see any police reports  
18 indicating that only four cartridges were found inside of  
19 his car?

20 A. Yes.

21 Q. Can you tell me what you made of that, if  
22 anything?

23 A. So in the -- in the initial scene when the car  
24 was still physically on the road and the road was blocked  
25 off, of course, the initial investigator located four of

1 the fired cartridge cases. Ultimately the car was towed to  
2 the garage in a controlled environment, that's when the  
3 examiner found the fifth one. So initial reports they only  
4 found the four and then when they secured the vehicle and  
5 put it in a confined garage is when they found the fifth.  
6 So that's all I make of that accounting.

7 Q. Moving forward to the area under Desmond, the  
8 italicized subheading, Desmond Franklin data. In the first  
9 sort of subsection you find that the -- the pistol in  
10 Desmond's car was recovered at the feet of Mr. Franklin  
11 Ford of the driver's seat, is that correct?

12 A. Yes.

13 Q. Okay. So you don't have any disputes with  
14 where that gun was recovered?

15 A. No, that, I think, is well supported by the  
16 body camera video of the first person who actually  
17 recovered or reported recovering the gun is in that area  
18 near his feet.

19 Q. Okay. Moving down to the bullet points below  
20 that, you find that the pistol had the safety lever on the  
21 left side in the on safe position, correct?

22 A. Correct.

23 Q. So you don't have any disputes with that, you  
24 find that the safety was on that firearm?

25 A. Again, I'm making an assumption there that the

1 photographs that captured this gun were not altered in any  
2 way, that they simply recovered the gun and then, when time  
3 permitted, photographed it as is. So it was documented  
4 with the safety in a position that would be on safe when  
5 they photographed it.

6 Q. Okay. And what does it mean for that pistol  
7 to be in the on safe position as you've put it?

8 A. So there's an external safety lever, it's  
9 called an ambidextrous because the lever is actually on the  
10 left and the right side, when you move that lever downward,  
11 so it's pointing downward, that's the on safe position, and  
12 what that does is it locks out the ability for a pull of  
13 the trigger to cock the hammer and fire the gun or to be  
14 able to discharge the gun, the gun is mechanically locked  
15 and unable to discharge when the safety is applied as it  
16 was photographed.

17 Q. If you are holding that pistol -- have you  
18 physically held a pistol like this one?

19 A. I've held this pistol, yes.

20 Q. Yeah, this particular pistol, if you're  
21 holding that particular pistol and the safety is on or on  
22 safe as you've just described, how does the trigger feel,  
23 can you --

24 A. That I don't recall, I would have to -- I  
25 would have to check if -- if it has a disconnect.



1 Sometimes when the safety is on safe the trigger flops and  
2 sometimes the trigger is physically blocked. I think this  
3 trigger simply just doesn't pick up, which I think you  
4 would meet very little resistance in pulling the trigger,  
5 but for a deposition I would want to check the mechanics of  
6 that specifically. So I'm going from memory, I think the  
7 trigger simply just can move but it doesn't have any  
8 tension, any real tension on it.

9 **Q. Fair enough. In either case, if you're**  
10 **holding that gun, you know how to use that gun and you put**  
11 **your finger on the trigger when it's in the on safe**  
12 **position, would you know that you can't fire the gun and**  
13 **shoot a bullet out of it?**

14 **A.** Only once you pull the trigger, you would have  
15 to complete the action of pulling the trigger to the rear  
16 and then you might recognize that you have this slack and  
17 that the trigger is not engaging properly, but it would  
18 require you to pull the trigger to the rear, you wouldn't  
19 -- you wouldn't recognize it just by touching the trigger,  
20 it would require you to be pulling the trigger.

21 **Q. Then what about visually, if you look at that**  
22 **pistol and the safety is in the on safe position, can you**  
23 **visually tell that it's -- that it's on safe?**

24 **A.** If you know the gun the answer would be yes,  
25 if you know how the gun functions, you could either

1 recognize that the lever is not parallel to the frame but  
2 it's pointed downward, that would be one visual. And then  
3 when it's on fire there's a little dot that is exposed, a  
4 little red dot, red means hot, fire, and you might be able  
5 to see that dot when the lever is in fire. So it's  
6 conditional if you know the gun and know the  
7 characteristics of the gun, but it has a visible downward  
8 tilt to the safety lever and when it's on safe it covers up  
9 that red dot.

10 **Q. And with this pistol, how -- how physically do**  
11 **you put the gun into on safe or off safe?**

12 A. Either side lever, you simply, typically you  
13 would use your thumb to push the lever upward, it rotates  
14 maybe a quarter-inch from on safe to ready to fire.

15 **Q. The third bullet point under the subparagraph**  
16 **saying Desmond Franklin data, you talk about pulverized**  
17 **glass and blood on the surface of Desmond's pistol, is that**  
18 **right?**

19 A. Yes.

20 **Q. I want to ask you about the pulverized glass,**  
21 **you viewed that physically when you looked at that gun, is**  
22 **that correct?**

23 A. The glass?

24 **Q. Yes. The pulverized glass on the pistol.**

25 A. No, when I -- when I did my direct viewing of

1 the physical evidence in this case the gun had changed its  
2 appearance quite a bit, the blood had degraded, the blood  
3 that was on the surface had degraded and created some rusty  
4 areas, and because I think the gun had been test fired and  
5 examined by other examiners prior to me, there was not  
6 nearly as much glass contained on the surface of the gun.  
7 I would have to zoom in on the pictures I took at that  
8 time, but I deferred to the original scene photographs  
9 because I think they captured the appearance as it was  
10 right after collection, and in my opinion the trace  
11 evidence like this blood and glass had changed by the time  
12 I did direct viewing.

13 Q. Okay. So the meaningful photographs of the  
14 glass for you were the ones taken at the scene, is that --  
15 am I getting that right?

16 A. Correct, yes, in the original photographs when  
17 they first put the gun in a package, a storage box they  
18 took photos of both sides of the gun.

19 Q. That's what you're using here on page 3 of  
20 your report as figure 1?

21 A. That's correct.

22 Q. What, if anything, does that glass, and I see  
23 the arrows you put in pointing to it on figure 1, what, if  
24 anything, does that tell about you this crime scene?

25 A. So one of the things I know about this event

1 is that a fired bullet perforated, went through and through  
2 the passenger side window glass, and that's a type of glass  
3 called tempered glass, causes the entire window to shatter  
4 when it's struck by a projectile. With the high energy of  
5 a projectile it creates a lot of very tiny shards, what  
6 I've called the pulverized glass, and so this gun, what  
7 this tells me forensically about this reconstruction is  
8 that this gun in some capacity was exposed to this  
9 pulverized glass, whether it arrived at the exact time that  
10 the glass was pulverized or that pulverized glass landed on  
11 the gun, I can't say for sure, but it was definitely not  
12 hidden or protected from pulverized glass arriving to it,  
13 so that's the -- that's the gist of the observation that I  
14 included here, because I know I have pulverized glass, one  
15 source of pulverized glass that combines with the rest of  
16 the reconstruction.

17 **Q. Was the shattered passenger side window from**  
18 **the bullet the only source of pulverized glass that could**  
19 **have resulted in these glass drops?**

20 A. Yes.

21 **Q. The windshield crashing against the fence**  
22 **could not have done it in your view?**

23 A. No, a couple reasons, the windshield glass is  
24 a different design, it's called laminated glass, and so it  
25 doesn't pulverize and then, albeit a significant impact,

1 it's still considerably less energy than the focused bullet  
2 perforating the glass. So the windshield cracking and  
3 being hit with the head or the -- or a body part or  
4 something is not going to create the kind of pulverized  
5 glass that we see here, it requires the higher energy  
6 connected to something like the discharge of a firearm.

7 **Q. In your view the pulverized glass then that**  
8 **went on to this gun shattered at the moment that Garcia's**  
9 **bullet hit it, correct so far?**

10 **A.** The glass did, the glass shattered, and if we  
11 look at high speed video of tempered glass being fired with  
12 handgun rounds, you see an enormous plume of pulverized  
13 glass, it's everything from little shards like what we see  
14 here to almost dust-like fragments of glass, and that  
15 pulverized glass is propelled forward along the path of the  
16 bullet, the bullet is kind of hidden inside that plume of  
17 pulverized glass, the glass is relatively small so it falls  
18 out and the bullet keeps going, and that's what I recognize  
19 happening here.

20 **Q. Here after that glass shattered, that was from**  
21 **what you expect to be the -- either first or second bullet**  
22 **that was fired, correct?**

23 **A.** Yes.

24 **Q. Okay. And we'll talk about that in a minute.**

25 **A.** Sure.

1           **Q.       So the glass shattered from either the first**  
2 **or second bullet and then went all over the inside of the**  
3 **car?**

4           A.       Yeah, there's -- there is a lot of, both  
5 photographically and then practically my knowledge about  
6 glass breaks, there's a lot of pulverized glass in and  
7 around the front seat areas across in the car. So, yeah,  
8 that pulverized glass is blasted into the -- into the car  
9 and can land on all the -- on any surfaces inside the car.

10          **Q.       And then from the point that the glass**  
11 **shatters in this case all the way up to the point where the**  
12 **car crashes and comes to a resting position, that glass is**  
13 **still going all over the inside of the car, is that**  
14 **correct?**

15          A.       I wouldn't say that, I think the -- the  
16 pulverized glass dissipates pretty quickly, it doesn't  
17 float like chalk dust or something like that, at least not  
18 the shards that are as large as what I've identified in  
19 this photograph, those will settle fairly quickly, so I  
20 don't expect those shards to be flying around the car, but  
21 they would be on surfaces. I think by the time the car  
22 crashes, that pulverized glass would have landed and been  
23 sitting on whatever surface it landed on.

24          **Q.       Okay. So that -- that pulverized glass, even**  
25 **though there's a plume, it doesn't remain in the air**

1 **really?**

2 A. Correct, for particles the size that are  
3 represented in this image, I expect them to fall out of the  
4 air pretty quickly. I don't have a quantitative time  
5 frame, I've never considered that, but they are physical  
6 entities, they have mass, and so they will settle under  
7 gravity pretty quickly in the environment of this shot  
8 being delivered.

9 Q. Okay. So the glass shards fall pretty quickly  
10 and then after they fall, as the car is in motion, that  
11 matter is shifting around until the car comes to --

12 A. It can, correct, glass shards, fragmentation  
13 patterns that are inside the car settle down and they can  
14 be dislodged, they're not necessarily stuck to the surface  
15 that they land on.

16 Q. And similarly, they could, you know, if  
17 there's glass that has fallen onto the seat, for example,  
18 then it could be smushed up against another object or come  
19 into contact with another object with the car as it moves?

20 A. Correct, we would call that a secondary  
21 transfer, and, yeah, that would be glass that has already  
22 shattered and landed and then secondarily transferred onto  
23 another object.

24 Q. If you had had access to the actual vehicle in  
25 this case, could you better tell the extent and location of

1     **the glass in that car?**

2           A.       Possibly, it's -- I would -- I would generally  
3     lean towards that it wouldn't be valuable because that  
4     plume of glass, that high energy dissipation of glass  
5     doesn't necessarily land in a predictable cone shape thing  
6     that I could then trace back and say, oh, this traveled  
7     this far or whatever, but there's always value in observing  
8     the direct piece of physical evidence, in this case the  
9     car. So I stopped short of saying it would have no value,  
10    I don't know that it would have no value, but it would be  
11    something that could be considered if we had had the car  
12    and look for transfers of glass in other conspicuous areas  
13    in the car.

14           Q.       Can you tell here whether the glass fell onto  
15    the gun or struck the gun from a particular direction or  
16    how it got there?

17           A.       No, I -- I stopped short of trying to figure  
18    out how the glass actually arrived to the surfaces on this  
19    gun because of what we've discussed, we know that glass, a  
20    lot of small shards were generated, so the best that I can  
21    do with the reconstructive aspect is to say that the gun  
22    was not protected from glass arriving to it. When the  
23    glass actually arrived to it, I can't say.

24           Q.       Okay. And when you say the gun was not  
25    protected, in this case that means the gun wasn't wholly



1     **shut away somewhere?**

2           A.       Correct, it wasn't -- it wasn't protected.  
3     The glass will only go in to spaces that it can fly into.  
4     So if -- if the gun were protected, say, between two seats  
5     or in a pocket or something like that, it would be  
6     physically blocked from the glass arriving to it. So  
7     that's not indicated in this -- in this event, so somehow  
8     the gun is exposed enough to be able to intercept the  
9     glass, whether it's from the primary bullet strike or  
10    secondarily being set into preexisting pulverized glass, I  
11    can't tell the difference between those two.

12           Q.       I see. Now, at -- going back to the bottom of  
13    page 2 of the report, the final paragraph, unbulleted  
14    paragraph, the autopsy report shows a single gunshot entry  
15    wound to Mr. Franklin's right temple with no associated  
16    exit and that the bullet entry is irregular in shape, which  
17    supports that the bullet struck an intervening object prior  
18    to arriving to Mr. Franklin. Can you explain to me the  
19    significance of those two findings?

20           A.       So, again, in tracking a bullet path, trying  
21    to complete the track, I have a bullet that left Garcia's  
22    gun, impacted and pulverized glass, and my question then  
23    becomes is that the bullet that also crossed the interior  
24    of the Ford and struck Franklin in the head. So one of the  
25    things I'm going to look at is the wound pathology or the

1 wound ballistics that are associated with the autopsy, I'm  
2 not a pathologist, I'll admit, but I study wound impacts  
3 and bullet impacts into bodies in virtually every case I  
4 examine, so looking for cues, if the bullet were stable and  
5 stationary, that is if the glass had already broken and a  
6 bullet comes through open space, I expect the entry wound  
7 to be symmetrical and reasonably round or oval because the  
8 bullet that's causing it would be round or oval. But when  
9 a bullet strikes an intervening object, like the glass in  
10 this event, the bullet begins to tumble, it becomes  
11 irregular in shape and it changes from its normal, straight  
12 on profile to a tumbling and wobbling bullet, so the bullet  
13 is both physically damaged by hitting a hard surface, such  
14 as the glass, and it's unstable. When that -- when a  
15 bullet is performing in that manner and it hits soft  
16 tissue, hits a human being, it doesn't leave a nice round  
17 hole, it leaves an irregular hole, and in this case the  
18 entry wound described at autopsy and photographed is more  
19 triangular than oval, and so it suggests that the bullet  
20 that arrived to him was destabilized or not -- not stable,  
21 not whole nose first type of bullet. Then when I examined  
22 the actual bullet in Cleveland I could see microscopically  
23 that there are shards of glass embedded in the nose of that  
24 bullet. So now I have a bullet in his body, irregular  
25 entry with shards of glass, backtracking those observations

1 allows me to complete essentially that bullet track, which  
2 is what I then use for one of my five tasks, that basically  
3 completes one bullet path analysis and I move on to the  
4 next one.

5 Q. So based upon, if I'm getting this right, the  
6 glass shards, which you would expect to be and observed in  
7 the bullet and the position and shape of how the bullet  
8 went into the temple, you conclude that the same bullet  
9 that killed Mr. Franklin in his head was the same bullet  
10 that came through that and shattered that glass window?

11 A. That, I agree, that's my opinion based on the  
12 collection of evidence that we've talked about so far.

13 Q. And we'll speak about this more later, and I  
14 know you get to it, but it's also your conclusion that that  
15 was probably the first or maybe the first or second bullet  
16 fired?

17 A. Yes, yes, it's one of the first two, and then  
18 we begin to rely on some of the data from the video  
19 documentation as well, so it's not simply the performance  
20 of the bullet but the angles and the reconstruction in  
21 totality helps me identify that that has to be one of the  
22 first two projectiles delivered.

23 Q. There was no exit wound, so that bullet was  
24 available to you because it was recovered at autopsy,  
25 correct?

1           A.       That's right.

2           Q.       And looking at page 4 of 17 of the report,  
3 there are, you find two fired bullets which were never  
4 recovered?

5           A.       Correct.

6           Q.       Okay. Do you have any -- does that do  
7 anything to your opinions in the case or your ability to  
8 evaluate the reconstruction?

9           A.       It -- it does to the extent that, as I've been  
10 describing, I like to track everything from the time it  
11 leaves the gun until it comes to rest, so if we don't have  
12 the final end point of a bullet because it's lost in the  
13 environment, that I would like to see those two missing  
14 bullets, look at the performance, look at the shape, look  
15 at the damage that they encountered, did they pick up trace  
16 paint or metal or something like that. However, I do have  
17 the bullet holes that were caused by those, so I can track  
18 those to the point where they impacted the vehicle, created  
19 the damage that was documented, but then of course I don't  
20 know where they go. So would I like to know where those  
21 two are, sure, I don't consider them essential to  
22 reconstructing the tracks of the bullet, the paths that the  
23 bullets took.

24           Q.       And when you say you do have the bullet holes,  
25 you're relying on photographs, right?

1           A.       Correct, the photographs, body worn camera,  
2 the documentation of the vehicle from the time it was first  
3 approached by law enforcement was the only one recording  
4 the dynamic, so body camera and then the physical  
5 examinations that they did on the -- on the vehicle.

6           Q.       So when you say in the report, and I'm looking  
7 at page 4 of 17, the second full paragraph, no specific  
8 horizontal or vertical bullet path details were defined in  
9 the data so approximations were made, can you explain that  
10 to me?

11          A.       Yes. So in the process of evaluating a bullet  
12 path, every bullet path is comprised of two values,  
13 horizontal, that's like the left/right or the compass  
14 bearing north, south, east or west is measured on the flat  
15 plane, so that's, horizontal is one aspect, and then the  
16 vertical is the up and down, and you can, in some  
17 instances, use techniques to determine those horizontal and  
18 vertical angles, and so in the report here I noted in my  
19 data, well, of course we know I don't have the car and the  
20 data did not record specific horizontal and vertical  
21 angles, so, again, that would be information that would  
22 have been useful to further plot, again, when I go all the  
23 way forward to my 3D diagrams, I would love to be able to  
24 put a physical number to each of these bullet tracks, but I  
25 have to estimate that number because I don't have those

1 horizontal/vertical measurements.

2 Q. Would you typically expect to have those  
3 horizontal/vertical measurements from the people who  
4 process the crime scene or processed it?

5 A. That's typically where it comes from when it's  
6 done. When processing a scene not everyone knows those  
7 techniques of how to measure those and not every bullet  
8 path is easy to determine those, for example, in this case  
9 where we have very short bullet strikes through the door  
10 and to the A frame, some people are uncomfortable trying to  
11 marry those two positions and backtrack that as a  
12 horizontal and vertical value. So why they didn't do it  
13 here, I don't know, but they didn't -- they didn't attempt  
14 to put numeric values to those angles. And then, of  
15 course, in the condition of the window glass, we know where  
16 the bullet went through the glass, but Mr. Franklin would  
17 have mobility in the vehicle, so you don't have a fixed  
18 second point and that can affect, of course, the horizontal  
19 and vertical angles, how Mr. Franklin was oriented while in  
20 the car is -- is a variable rather than a fixed point, so  
21 it may be with the variables that they were faced with they  
22 decided not to try to use physical hard measurements, or  
23 they simply just didn't -- didn't think to do that for this  
24 particular event.

25 Q. Desmond's position in the car would only be a

1     **variable as to the bullet path that struck him, right?**

2           A.     Desmond, yes, yes, yeah, his orientation is, I  
3     often talk about it as, I've been calling them landmarks,  
4     but a snapshot. So the bullet arrives to him, that is a  
5     one one-thousandth of a second impact time, so that's his  
6     position that's documented for that one one-thousandth of a  
7     second, but it doesn't necessarily inform me how he was a  
8     thousand milliseconds ahead of that or a thousand  
9     milliseconds after that, he has just the one impact, at the  
10    time of that impact we can lock him into position because  
11    we can connect wherever he was in the driver's seat, we can  
12    limit that range and then backtrack, has to come through  
13    the glass and then if we continue that approximate wedge  
14    that ultimately comes to where Garcia would have been  
15    located, that's how we backtrack those trajectories.

16           **Q.     Okay.**

17           A.     So the limit is on Mr. Franklin because we  
18    know he's in the driver's seat.

19           **Q.     And as to the bullet that struck him, another**  
20    **data point for your findings about that bullet's trajectory**  
21    **would be the piece of glass still sticking out of the**  
22    **passenger side window with the circle around it pictured in**  
23    **figure 2 of your report, is that correct?**

24           A.     Yeah, yeah, that small corner, the way that  
25    that glass breaks points back to the position where the

1 bullet went through. And so we know where the bullet  
2 entered that lower window and then it goes, continues, of  
3 course, across toward the driver's position and strikes  
4 Franklin in the -- in the side of the head. Whether  
5 Franklin was leaning more towards the steering wheel or  
6 pushing back against the back of the seat, that we don't  
7 know, that's the variable that we don't know, but we know  
8 that he is operating the vehicle and so that puts him in  
9 that localized area, so we connect that area through that  
10 bullet hole and continue that backtracking across to where  
11 Garcia would have been to deliver that shot.

12 **Q. And that also -- is the location at which the**  
13 **bullet entered Desmond's right temple also an important**  
14 **data point for that path?**

15 **A.** Yes, yes, that is the point that you connect,  
16 because he is not fixed in space like a pillar or a window,  
17 he can be leaning forward or back, but he can only lean so  
18 far forward and back as the confines of the driver's  
19 compartment dictate. So when we backtrack that path from  
20 head through the glass back toward Garcia, we get a limit,  
21 we get a range of where that -- where that bullet path was  
22 traveling, and that's how we -- that's also how I applied  
23 sequencing in this event determining that to be the first  
24 or -- first or possibly the second shot delivered.

25 **Q. Okay. And that data puts Desmond for sure in**



1     **the driver's seat, right?**

2           A.     Yes, well, that and the other physical  
3     evidence that he's physically strapped in the seat, so we  
4     know he's in the driver's seat and that part of his body  
5     has to be facing the arrival of the bullet, that being the  
6     right side of his head, he's -- he can't be in the back  
7     seat and he can't be in the passenger seat, so that leaves,  
8     that leaves him in the driver's seat, and connecting that  
9     general area back through that bullet hole is how I  
10    established the approximation of that bullet track.

11           **Q.     And, in fact, all that evidence also means**  
12    **that at the moment that the bullet entered Desmond's head**  
13    **he was looking forward and the bullet entered through the**  
14    **glass window to the temple?**

15           A.     Correct, the right side of his face is facing  
16    the gun, so it actually, the track through his -- through  
17    his skull through his head actually goes rearward a little  
18    bit, which would indicate a little bit of rightward turn,  
19    but the right side of his head has to be exposed to the gun  
20    and since this came through the forward portion, this  
21    bullet came through the forward portion of the car he's  
22    generally facing forward, his head is generally facing  
23    forward, the track of the bullet indicates he may have been  
24    slightly turned to the right because it doesn't go straight  
25    across his head, it lands -- it ends a little bit behind,

1 and to accommodate that along this straight line path would  
2 be a little, slight turn of the head. But I also consider  
3 in that exercise that there's variables of the bullet  
4 tumbling, the glass pulverizing, so at the end of the day,  
5 yes, the -- his head is facing generally forward to expose  
6 the right side of his head to the gunshot, the position of  
7 the firearm.

8 **Q. The tumbling of the bullet and it being**  
9 **interrupted by going through the glass affect its angle**  
10 **into the head, is that what you're saying?**

11 A. Yes, it can. The irregular shape of the  
12 bullet as well as now the bullet is decelerating, slowing  
13 down, slowing down to the point that it does not exit the  
14 other side of his head, so it loses all the rest of its  
15 energy in traveling across his head. So the slower the  
16 bullet is, it's more susceptible to deviation from a  
17 straight line. So that's why I consider him an area, this  
18 part of his face where the -- head where the entry is has  
19 to be facing the gun wherever it was, so it's not going to  
20 be a mathematically linear line that you can draw, it's  
21 going to be more conical or a cone-shaped path to describe  
22 an area that would accommodate the glass, the entry wound  
23 to the head and backtracking to where Garcia would be.

24 **Q. And the -- you're also surmising that his head**  
25 **could have been tilted to some angle, can you conclude what**

1 **angle, how much?**

2 A. No, it's not going to be a quantitative  
3 analysis, it's not going to be possible with that, how much  
4 angle head tilt, head twist because of those variables, the  
5 deformation of the bullet and the deceleration of the  
6 bullet. The range that he could achieve is within the  
7 range that we know the error that that bullet can deviate  
8 from a straight line, so those -- the movement of his head  
9 is basically offset by the predictable error in that  
10 slowing down bullet, so that's why we can't say he was  
11 turned 4 degrees to the right or 8 degrees to the right,  
12 the variables of the performance of the bullet don't allow  
13 that level of discrimination.

14 Q. And so you're not making a biomechanical  
15 analysis of his head angle, correct?

16 A. No, no.

17 Q. Okay.

18 A. Other than -- other than the bullet has to  
19 arrive, which means it has to be pointed toward the  
20 position of the gun at that instant.

21 Q. The temple has to be pointed towards --

22 A. Yeah, the right side of his temple, yeah.

23 Q. Got it. Also based upon the data about this  
24 bullet path, where can you place Garcia's car with respect  
25 to Desmond Franklin's car?

1           A.       So for this bullet path he doesn't hit the  
2 pillars behind the passenger door or the frame below the  
3 passenger door, so there's a physical limit with where the  
4 car seats are. He doesn't go through the car seats either  
5 to achieve this, he goes through the glass and through open  
6 space, so that -- that wedge of going through the glass and  
7 then ending, I'm indicating with my hand an expanding  
8 wedge, it starts at the hole through the glass and then the  
9 range expands. And so I may have lost the question, but  
10 that's -- that's what dictates why I think it's one of the  
11 first shots because it occurs when they're -- when they're  
12 parallel, cars side by side that is, I'm sorry, when the  
13 cars are side by side, because once the Ford accelerates  
14 past Garcia, that shot no longer -- the shot to the glass  
15 and head no longer becomes possible, the bullet would have  
16 hit either the back window, the pillars, which were struck,  
17 but it would hit -- it would have hit somewhere else and  
18 there's no bullet path that could accommodate that. So it  
19 has to occur when Garcia and his -- when his gun is forward  
20 of the, what we call the B pillar or the back of the  
21 passenger door, it's got to be forward of that, and it has  
22 to continue across the cab to strike a position in the  
23 driver's area. So that only occurs when the cars are side  
24 by side, nearly window to window essentially at that level  
25 or somewhere in that range, so that's what I'm using to

1 determine that that's one of the first shots. The video  
2 data never shows a cat and mouse where one car accelerates  
3 and another car passes it and one car slows down, it's a  
4 continuous action of the Ford passing Garcia's vehicle and  
5 Garcia never again goes -- goes forward of the Ford, so the  
6 progression of gunshots he delivers fit with the  
7 acceleration of the Ford, maybe the deceleration of Garcia  
8 or some combination of both to accommodate a shot that goes  
9 across and by then the Ford moves forward and the remaining  
10 shots are diagonal into the side of the car and the back  
11 doors.

12 **Q. Okay. So at -- so let's break that down a**  
13 **little bit. At all times during this interaction Desmond**  
14 **Franklin's car is going past Garcia's car?**

15 **A.** Correct, they -- well, it comes from behind  
16 him first and then during the shooting event when what I  
17 believe is the first shot, but possibly the second shot,  
18 the glass shot, which is the fatal, the cars are almost  
19 side by side where the fronts of the cars are essentially  
20 in the same relative position. In that orientation a shot  
21 through the glass can continue across and hit an object  
22 somewhere in the driver's seat between the steering wheel  
23 and the back of the driver's seat, which is where Franklin  
24 was occupying. The remaining shots all have a little bit  
25 of back -- a little bit to a lot of back to front, so to

1 achieve a back to front either Garcia is slowing down  
2 creating a greater angle, so now the cars are not nose, you  
3 know, front plane to front plane, one car, the Ford,  
4 Franklin is ahead of Garcia and the shot is delivered in  
5 that manner. Those bullet tracks are diagonal and then as  
6 the -- as the shooting continues additional shots are even  
7 more diagonal. So the cars are not moving at the same rate  
8 when all five shots are delivered, it starts when they're  
9 essentially side by side and continues as the Ford passes  
10 forward of the Honda, of Garcia's car.

11 **Q. After that first shot, which you believe is**  
12 **the fatal shot, Desmond Franklin's car speeds up and**  
13 **continues to move forward?**

14 A. I don't know if it speeds up, but it does  
15 continue to move forward.

16 **Q. And that first shot, which you believe is the**  
17 **fatal shot, it -- the position that's circled on figure 2**  
18 **on page 4 of your report where you can see the piece of**  
19 **window glass still sticking out of the passenger side**  
20 **window?**

21 A. Yes.

22 **Q. So it's all the way to the rear of that**  
23 **passenger side window, that's the place at which the bullet**  
24 **struck that window?**

25 A. Yes, and if I can refer you to figure 3 on

1 page 5, I've incorporated one of the original photos and  
2 there's a close-up of the shattered glass and you can see  
3 where the -- where the glass is -- comes to kind of a  
4 circular point or a cone shaped point, that's where the  
5 bullet perforated that glass. So on figure 2 you can see  
6 the overall profile of the car with the forward circle  
7 incorporating that glass and figure 3 is a closer up view  
8 of that.

9 Q. Okay. And so between figures 2 and 3 you can  
10 see that bullet strike and its position is all the way to  
11 the rear of that passenger side window, correct?

12 A. That's correct, yes.

13 Q. So there are no shots fired anywhere to the --  
14 that struck anywhere to the front of Desmond's car from  
15 that point?

16 A. That's correct. By front you mean like the  
17 hood or headlights?

18 Q. Yeah.

19 A. No evidence documented in that, this is the  
20 farthest forward impact that I'm aware of on Franklin's  
21 vehicle.

22 Q. And based upon this and the other data that  
23 you've discussed, is your conclusion that the cars had to  
24 be exactly parallel --

25 A. No.

1           **Q.       -- at the time the shooting happened?**

2           A.       No, and I'll -- I'll include that when you ask  
3 a scientist exactly parallel would mean that I could put a  
4 -- a level across the fronts of the car and I don't know  
5 that it's that. They are approximately parallel to where  
6 Garcia can deliver a shot that's more side to side from his  
7 driver's side into the passenger side at toward the rear  
8 side of this window and have it continue across to strike  
9 Franklin in the head. And it's not quantitative, that is,  
10 I don't have a number of how many inches forward or  
11 rearward of the window he was, but I have a qualitative  
12 kind of an area that can be delivered that has to meet  
13 these landmarks, and that's why in the totality of this  
14 event I think that this is the first or possibly the first  
15 or second shot. The next one described is just behind this  
16 one and it does not exhibit a lot of angle to it either, so  
17 these two have very similar profiles, the one through the  
18 glass and the one immediately behind the glass, so that's  
19 why I can't say if they are exactly one or two. By the  
20 time we get to three, four and five we've increased the  
21 angle so much that they can't be side by side as in shots  
22 one and two, they have to be forward forward of Garcia by a  
23 certain amount.

24           **Q.       For shots one and two, could Garcia's car have**  
25 **been somewhat behind Desmond Franklin's car when the**



1     **bullets were fired?**

2           A.     Yes, his window, the front part, for example,  
3     the front part of Garcia's Honda's window could be aligned  
4     with the rear part of Franklin's so they are not exactly  
5     bumper to bumper dead parallel, but where the Garcia  
6     vehicle is slightly behind the front plane of Franklin's  
7     vehicle. He is limited by if he gets too far behind  
8     adjacent he can't deliver this shot, he would hit the  
9     pillar, which is what happened later on. So for this first  
10    shot and then first and -- I'll group the first and second  
11    shots together, they have to be close, now, it can be the  
12    front part of Garcia's window aligning with the back part  
13    of Franklin's window, I think that's the orientation you're  
14    questioning me about, that is a possibility, they do not  
15    have to be back window to back window, front window to  
16    front window, they can be offset a little bit up to the  
17    point where the shot becomes impossible.

18           **Q.     You also conclude that the passenger side**  
19    **window in Desmond's car was fully closed when Garcia's**  
20    **bullet struck it, correct?**

21           A.     Yes.

22           **Q.     Can you explain the basis for that finding?**

23           A.     So, again, it gets back to the performance of  
24    tempered glass, which is his side window, when a  
25    projectile, a high energy to tempered glass shatters that

1 entire window from that single impact where the impact  
2 goes, hits, the fractures radiate outward, that's why when  
3 some glass remains we can backtrack those fractures and  
4 figure out where the bullet came through. Part of that is  
5 a lot of glass fell in ultimately, probably from the  
6 collision, because once the glass shatters from this bullet  
7 impact it's very weak and it can fall in. So when it falls  
8 in though there is weather-stripping all the way around the  
9 edge of the window to keep it sealed up, when it falls in,  
10 glass that's trapped in the weather-stripping doesn't  
11 always fall in because it's physically compressed in the  
12 weather-stripping. This car, Franklin's car had small  
13 particles, small fragments of glass still in the upper  
14 weather-stripping, which means glass had to be in that  
15 position, glass will never fly up into that  
16 weather-stripping, so that's how I know his was up for the  
17 shot that perforated that window.

18 **Q. Moving forward to page 5, I guess we've been**  
19 **looking at figure 3, but page 5 at the top above figure 3**  
20 **in your report, you have a finding that Devin Badley was**  
21 **not in line with the bullet trajectory, but it's -- it**  
22 **sounds like you conclude that he was very near the bullet**  
23 **trajectory, is that fair?**

24 **A. Yes, I think that's true.**

25 **Q. Can you explain that finding -- those findings**

1 to me?

2 A. So it's back to the pulverized glass and the,  
3 I guess I'll call it an assumption that Badley was in the  
4 passenger seat during this, during the shooting event. So  
5 first he cannot be in the path of this bullet because he  
6 doesn't have a gunshot wound, so he either has to be ahead  
7 of, below, or behind the track that connects the glass to  
8 Franklin's gunshot wound. When I examined his outer jacket  
9 that was recovered from this event, he has pulverized glass  
10 collected on his right shoulder and across his back, that  
11 would tend to support, for me, that I think he's more  
12 likely leaning forward, maybe chest against the knees, and  
13 if you look at how low that perforation is to the glass, he  
14 has to essentially be below the plane of the window or he  
15 would have been struck by the bullet, so I think the best  
16 orientation is with him leaning forward and below the plane  
17 having the bullet cross over him, pulverized glass is  
18 shattered into his shoulder and back. I cannot eliminate  
19 that he's leaning back, and that leaning back and maybe  
20 twisted such that he exposes his shoulder and back to the  
21 pulverized glass that snags his outer jacket and is still  
22 embedded into the fabric that he was wearing. So he does  
23 not have a passage of a bullet, he is not struck by the  
24 bullet so he has to be ahead of it or behind it, and so he  
25 received the pulverized glass as well. But his exact

1 orientation, whether he was below the plane of the window  
2 or pressed back, he can achieve either one of those  
3 positions and still get glass, but not get a bullet.

4 **Q. Did you consider any blood drop evidence with**  
5 **respect to Devin Badley's position or his clothing or his**  
6 **orientation?**

7 A. No, he was -- he was much too complicated,  
8 from what I could see and what I was able to do in the --  
9 in the exam room. The type of blood and the secondary  
10 transfer and movement of the jacket didn't really reveal an  
11 analysis where it was something that was diagnostic from a  
12 blood stain perspective on him or on his seat. I looked at  
13 the photographs of where he had been seated, of the objects  
14 in and around his feet, you know, he had the soda cartons  
15 were toward his feet, they intercepted some blood, but to  
16 me that -- none of the patterns that I observed on any of  
17 those were diagnostic of a particular location or event of  
18 how he got the blood to those positions.

19 **Q. Okay. So he had blood on his clothes and on**  
20 **his seat, but it didn't really tell you anything**  
21 **meaningful, am I getting that right?**

22 A. Correct, for blood stain patterns to have  
23 meaning they need to be able to be cataloged and  
24 categorized, and these were very irregular, random types of  
25 stains, some were secondarily disturbed from movement

1 through them, so they weren't diagnostic of any particular  
2 type of pattern or specific event, and certainly no --  
3 nothing diagnostic enough to position his body or his  
4 jacket in the -- in the environment of that confines of the  
5 car.

6 Q. Okay. But based upon the photos and the glass  
7 in the jacket that you viewed, you put him, at the time of  
8 the shooting, either ducking down forward or potentially  
9 twisted back, but in the passenger seat, is that correct?

10 A. Yes.

11 MS. BONHAM: Okay. Guys, can we take a  
12 five-minute break, get a cup of coffee and  
13 come back just really quick?

14 THE WITNESS: That's fine.

15 MR. CABRAL: Yeah, that would be great.

16 (Brief recess was had.)

17 Q. Looking again at pages 3 through 5 of the  
18 report, are there any other conclusions that you made that  
19 aren't captured here about that first bullet strike,  
20 besides what we've discussed?

21 A. No, I think we've -- I think we've covered all  
22 the aspects of that, of that bullet path.

23 Q. Okay. I think we'll go through the others a  
24 little bit more quickly. Turning to page 6 of 17, under  
25 the subheading bullet path B, now, sequentially you say

1     **this shot is indicated to be one of the first two shots but**  
2     **you believe it to be the second, am I getting that right?**

3           A.     Yeah, I think it better fits with the second,  
4     but I tend to try to be conservative in reporting that.  
5     It's so close to the perforation of the glass that I didn't  
6     want to commit to it being second, but it is physically  
7     behind the first one and it is -- it impacted the pillar  
8     underneath the forward edge of the door. So it's based  
9     primarily on its location that I think it's second, again,  
10    because I have better data on the other impacts that show  
11    there's a progression from the side that continues angular  
12    to where the shots become diagonal, and so when I continue  
13    that progression, this fits best with a second impact.

14           Q.     So based upon all the data that you're looking  
15    at, it seems to you like if you look at Desmond's car, the  
16    bullet strikes on Desmond's car, they go sequentially from  
17    front to back, one, two, three, four, five?

18           A.     Yes, generally speaking I think that's true.  
19    And, again, there's, one and two are close together,  
20    there's not a big separation, and then three, four, and  
21    five are similar angles but in different positions, so  
22    combining all of that, I think the best explanation is a  
23    sequence front to back, but I can't -- I can't conclusively  
24    prove that based on the data that I have.

25           Q.     Based upon looking at that sequence of bullet

1 **strikes in Desmond Franklin's car, can you make any**  
2 **conclusions about how long between shots, you know, if**  
3 **there was any space in time between the sequence of shots?**

4 A. No, I can't make that determination looking at  
5 the -- at the bullet holes. The best I can consider with  
6 that is data that describes how -- the fastest that people  
7 can deliver shots from a semiautomatic pistol. The process  
8 could be slower, it's not likely dramatically slower  
9 because there is limits of distance of travel and a limited  
10 amount of time when the cars are juxtaposed to allow the  
11 paths, but physically documentation would show that a  
12 shooter of a semiautomatic pistol can usually deliver three  
13 or four shots in a second, so that makes this between, you  
14 know, a second and a quarter if he's shooting as fast as he  
15 can, to maybe 1.75 seconds if there's a slower cadence to  
16 it. Ultimately, again, it's not a quantitative assessment  
17 but a visual assessment, the cars do not continue side by  
18 side, Garcia stops before the Ford continues going and  
19 crashing, so the shots have to fit in that little window,  
20 and shooting as fast as he can would encompass that timing,  
21 but independently looking just at the bullet strikes and  
22 the distance between them, I can't assess velocity of the  
23 cars or velocity of the separate shots.

24 Q. Is there anything to suggest that some shots  
25 had more time in between them than others or that there was

1     **any kind of pause between the series of shots?**

2           A.     No, I don't think so, I don't think they're  
3     far enough apart to really generate that kind of an  
4     assessment. Again, variables that I have to consider in  
5     trying to assess that include the velocity of the cars and  
6     we don't know, I don't know, sorry, I don't know if the  
7     cars were both accelerating, one accelerating, one  
8     decelerating, both decelerating, I don't know in that  
9     course of the delivery of the five shots the absolute ratio  
10    of velocities, so that precludes me from saying there was  
11    two and a pause and then three, or that there was three  
12    that hit near the B pillar and then two that hit farther to  
13    the rear, they're still too close together given those  
14    variables of car velocity for me to differentiate.

15           Q.     On the bottom of page 6 in your report in  
16    figure 4 you talk about your bullet path B, that you  
17    identify as B, being identified by the original police  
18    processing as impact number 3, is there any significance  
19    for you to that original police processing numbering  
20    system?

21           A.     No, it appeared to me that they simply  
22    numbered them one through five by using that yellow chalk  
23    or yellow crayon on the side. If they meant them to be  
24    some form of a sequential, I didn't take it like that, I  
25    just considered it the nomenclature the way that they



1 described them, so the -- their nomenclature is of no  
2 reconstructive value to me.

3 Q. And you didn't take the police processing  
4 numbering system to mean that they had drawn conclusions  
5 about the sequence of the bullets?

6 A. Correct, I did not see any data that they  
7 recorded that they thought that this was the order, and in  
8 my experience typically that's not something that would be  
9 numbered in a manner like this against a car because you  
10 have to name them something, they get these names and  
11 numbers, which may or may not reflect the actual sequence.

12 Q. So moving forward, we talked a lot about what  
13 you called bullet path A and then B, C, D and E on the  
14 subsequent pages of your report, your report fully captures  
15 your opinions about those bullet trajectories, am I getting  
16 that right?

17 A. Yeah, that would be correct based on the  
18 assessments in totality, those are the complete  
19 descriptions of the path as much as I could reconstruct.

20 Q. Under bullet path C on page 7 when you're  
21 discussing that, you say, the angle indicated by this  
22 bullet strike supports that the Ford had moved ahead of the  
23 driver's position of Garcia's Honda at the time of this  
24 shot. So by the time you get to the third, fourth and  
25 fifth bullet strikes to Desmond's car, your conclusion is

1     **that Desmond's car is already moving ahead of Garcia's, is**  
2     **that correct?**

3           A.     Yes, and, again, I try to be careful, either  
4     -- either Desmond is accelerating ahead or Garcia is  
5     slowing down, but the relative position between the two  
6     cars, an angle is being introduced where Desmond's car is  
7     ahead of, for three, four and five, ahead of the driver's  
8     position of Garcia's vehicle, so the angles are beginning  
9     to increase and get steeper as documented in the impacts to  
10    the car.

11           Q.     And part of the data that you reviewed for the  
12    basis of your report includes data showing that ultimately  
13    Desmond's car continued down the street and crashed into  
14    the gate, right?

15           A.     Yes.

16           Q.     So can you conclude that while Desmond's car  
17    is still being shot at it is moving forward?

18           A.     I'm not sure I can say that conclusively, I --  
19    I don't have any data to suggest that the car was -- was  
20    shot, for example, after the crash or I know where Garcia's  
21    vehicle stopped and did not advance, so there are limits to  
22    where the shots can be delivered, but, I mean, you could  
23    deliver the shots when the car was stopped but then the  
24    rest of the scene doesn't work, the ejected cartridge  
25    cases, the movement of people through the scene, so, yeah,

1 I may have lost the question in there.

2 Q. That's okay. I was asking, can you conclude  
3 that Desmond's car is moving forward the whole time it's  
4 being shot at?

5 A. I believe that to be true based on the video  
6 record and the other characteristics of where cars ended, I  
7 think that's true, I'll say it this way, in my opinion,  
8 that is true.

9 Q. Okay. So the later shots, what you label as  
10 paths C, D, and E, those did not have a human target, those  
11 are just striking the back of a car?

12 A. I don't know what the target was, but that's  
13 where they're hitting, they're hitting the frame and the  
14 back door of the car and they're on a diagonal line that if  
15 we continue -- they didn't continue into the driver's  
16 position but they're on a diagonal that if you were to  
17 continue, if they could have got through the door they  
18 would continue generally toward the driver's seat, and by  
19 the time you get to D and E, David and Edward, you would  
20 probably be hitting the back of the driver's seat if it  
21 were to get through and go that far.

22 Q. I see. Okay. Looking at page 8 of 17 of the  
23 report where you're discussing bullet path D, this is the  
24 bullet that you conclude may have struck Officer Garcia's  
25 side mirror on the way out, is that correct?

1 A. Yes.

2 Q. Can you explain to me the basis for that  
3 conclusion?

4 A. Yes. So, again, evaluating the appearance of  
5 the impact site and the side of the car, this damage is  
6 pointed at one end and oval and irregular and it's  
7 diagonally pointing downward, which to me suggests it's a  
8 bullet that's destabilized, one of these tumbling bullets,  
9 and for a bullet to destabilize it has to hit something  
10 first, otherwise it's a perfect cylinder arriving to the  
11 side of the car. So when we look at the other impacts to  
12 the car they have a cylindrical appearance, noting that the  
13 side mirror of Garcia's car was stuck and and looking at  
14 the profile of this bullet hole I think best fits with the  
15 continuation of that strike to his mirror, it's -- I  
16 believe it's occurring at a time when the bullet is  
17 traveling generally diagonally forward but it's a  
18 destabilized bullet tumbling and it's giving us this  
19 irregular slice in the side of the car rather than this  
20 nice cylindrical profile.

21 Q. Did you do anything to evaluate the bullet  
22 strike through the mirror, the side mirror?

23 A. I -- no, I -- you mean physically?

24 Q. Yeah.

25 A. I didn't, yeah, I didn't, I never touched that

1 car and I didn't -- I didn't, for example, examine a  
2 surrogate car for that, I used the documentation that was  
3 included. They did, in the original documentation, insert  
4 a trajectory rod, which gives you a visual representation  
5 of the track the bullet took through the mirror, and so I  
6 evaluated that bullet path, it shows a diagonal profile,  
7 and then if we continue that diagonal profile into position  
8 D, that is how I began to further support that the two cars  
9 are changing their position relative to each other and the  
10 shots are coming in more and more angled.

11 **Q. Looking at figure 7 on your report, that -- is**  
12 **that the trajectory rod through that side-view mirror**  
13 **picture that you're referring to?**

14 A. Yes, I've added a dotted line that's a yellow  
15 arrow if you're in color, I added the arrow, but next to  
16 the arrow is the rod that they positioned through the  
17 mirror surface and they took some additional photos. So  
18 when you look at the appearance of that photo you can see  
19 that the rod is not going straight front to back or side to  
20 side, it's going diagonally through that mirror, and so  
21 that bullet would be available, came out of the mirror and  
22 it would be available to impact the side of the car, can't  
23 be one of the front shots because the bullet will not make  
24 a left hand turn in midair, so it has to be a bullet strike  
25 that shares a similar angle into the side of the car, and I

1 think that's bullet path D, David, that best fits, this  
2 would be a bullet that's destabilized and impacts at an  
3 angled bullet path.

4 Q. That trajectory rod that's pictured that was  
5 placed by the original investigators, do you have  
6 confidence of the placement of that rod being accurate to  
7 where the bullet path was?

8 A. Yes, I think it's accurate, that process of  
9 connecting an entry and an exit is not a tricky one or a  
10 difficult one and there are other images that support the  
11 damage to the front side of the mirror and show other views  
12 of this. So I'm confident that that's where it went  
13 through and the track that the bullet took at that point.

14 Q. What, if anything, does that trajectory tell  
15 you about where Garcia's gun was at the time he shot that  
16 bullet?

17 A. So it is certainly somewhere, I'll say  
18 rearward or behind, sort of the back of the mirror surface  
19 on the external side mirror, and if we continue that yellow  
20 on the rod back into his car, his gun is on that rod,  
21 essentially somewhere straight back onto that rod, so  
22 somewhere between the about steering wheel position but out  
23 toward the side window and diagonal. So the limits of him,  
24 of course he occupies physical space, so this -- we can't  
25 extend this rod all the way through the back of his seat

1 because he's physically there, so, but he can have the gun  
2 positioned anywhere in front of his body but behind the  
3 mirror along that line and we can basically hang his gun  
4 somewhere in that area, and that's the best we would be  
5 able to do with that, with that track, forward of his body  
6 and diagonal, including through the window to the back of  
7 the -- of the mirror to the mirror surface of the mirror.

8 Q. And do you know, in forming this opinion, did  
9 you know whether Garcia is right or left-handed?

10 A. I don't know.

11 Q. Did you know whether he was holding the gun in  
12 the right or left hand?

13 A. I know his holster is on his right -- on his  
14 right hip, which indicates to me he's a right-handed  
15 shooter, so I never really considered past that, I assumed  
16 that he was shooting right-handed, but I don't know that  
17 for sure.

18 Q. Did you consider, as part of forming this  
19 opinion, where his seat was or how the seat was oriented in  
20 the car?

21 A. No, I did not.

22 Q. And so his -- the position of that gun has to  
23 be somewhere along that line and you can't say precisely  
24 where?

25 A. Correct, I don't know how forward --

1           **Q.       Within the range?**

2           A.       Yeah, it's going to be a range that points  
3 generally back to the driver's position of the Honda and  
4 adjacent to the driver's door of the Honda somewhere along  
5 the continuation of that line.

6           **Q.       And on the bottom of page 8 in the report when**  
7 **you were discussing this, you conclude that the adjacent**  
8 **window had to have been lower than the elevation of that**  
9 **bullet path, correct?**

10          A.       Yes.

11          **Q.       Can you explain what that means?**

12          A.       So Garcia's driver's window was not shattered  
13 and if it had been struck by a bullet it would have  
14 absolutely had shattered, but it was not shattered which  
15 means that it was not in the way of this bullet, of this  
16 particular bullet path, which means it has to be lowered.  
17 The -- the bullet cannot do a turn after it's been  
18 delivered and this shot is generally a level -- a level  
19 type of a shot, so when we backtrack this, if we hang the  
20 gun on -- if we track this yellow rod into the vehicle and  
21 hang his gun on it, the muzzle end of his gun has to be  
22 above the level of the window, so the window has to be  
23 lowered enough to let this bullet and/or the gun go by, I'm  
24 sorry, must be below -- the window must be lowered to the  
25 level of the gun or to the level that he can reach and not



1 hit his own window. So it has to be lowered, he didn't  
2 shoot through his own glass window, and it has to be low  
3 enough to let this bullet come through when he delivers  
4 this particular shot.

5 **Q. For this particular shot, how -- how low does**  
6 **the window on this particular car have to be?**

7 A. I would estimate, I don't know inches wise  
8 without -- I would have to measure a replica car, but  
9 qualitative, just in general, I would say that the window  
10 has to be down to -- the edge of the window is about at the  
11 same level as the top of the mirror, if you lower the  
12 window to the point where the top edge of the glass matches  
13 the top edge of the mirror, I think you could deliver this  
14 shot. So qualitatively speaking I would say maybe  
15 three-quarters of the way down from completely submerged or  
16 lower, of course it can be lower than that, but it can't be  
17 much higher than that, so somewhere from three-quarters of  
18 the way down or farther at the time of this shot.

19 **Q. And then looking to page 9 of the report, back**  
20 **to page 9 at figure 7, right above that figure, the**  
21 **location and angle fired by this bullet you say supports**  
22 **that it was one of the last two shots fired. So you're**  
23 **labeling this shot D, but, again, this is one of the last**  
24 **two, am I getting that right?**

25 A. Correct, similar to A and B that are a similar

1 profile, D and E have very similar angles indicated by the  
2 damage that was photographed, and so a very slight  
3 adjustment of the gun position can mean you hit under the  
4 handle or forward of the handle, it's a very minor  
5 adjustment. I can't tell those two apart with the data  
6 that I have, so one consideration is the progression goes  
7 straight from front to back, but physically with the angles  
8 indicated by D and E they could be reversed, they don't  
9 necessarily have to be four and five, they could be five  
10 and four because the angles are so similar.

11 Q. Understood. Looking at the very bottom of  
12 page 9 of 17 of the report when you're discussing what you  
13 label bullet path E and you're talking about that bullet  
14 path, you say, "This fired bullet path," and then on the  
15 next page, "has the general properties that can produce a  
16 fired bullet as seen in item 23." Can you just explain to  
17 me what that means?

18 A. Yes, so three of the five shots the projectile  
19 was actually recovered or a substantial portion of it, one  
20 was the one we discussed in his head. One of the  
21 projectiles that was recovered was smashed, I'll say  
22 symmetrically, so that is with the nose being pushed  
23 straight back and equally on all sides, generally speaking,  
24 that's a bullet that hits more straight on, and so the  
25 bullet that I'm talking about here in E is not smashed

1 straight back, it's smashed back, it's smashed, but it's  
2 smashed at an angle. And so given my, the very qualitative  
3 points of is it a bullet, is bullet at an angle or is it  
4 straight on, I have the bullet in the head we've resolved,  
5 the other two bullets, one indicates an angle and one  
6 indicates a straight on. So I have bullets that account  
7 for that angle, so D and E are angled and so this  
8 projectile fits better with shot D or E, and because of its  
9 angled profile the bullet that's flattened nose first fits  
10 better with position B, very similar to something straight  
11 into the side of the car. So that's a function of where  
12 the examination of the projectile can help resolve  
13 something about the path the bullet took, the performance  
14 of that bullet and the angular nature that it didn't hit  
15 straight on, this bullet, it hit at an angle. So that's  
16 what I'm trying to incorporate by that description of what  
17 they called item 23, which is one of the recovered bullets.

18 **Q. So you're -- here you're matching the**  
19 **recovered bullets to the bullet entries, am I getting that**  
20 **right?**

21 **A.** Correct, the bullet path indicates an angle on  
22 D and E, a pretty steep back to front angle diagonal and  
23 one of the bullets I have came from somewhere in the car,  
24 came from the back seat, but the bullet from the car, if I  
25 try to match it with the other impacts, it best fits with

1 an angular shot. There's another bullet that's found in  
2 the front seat area and that bullet is smashed almost  
3 straight on, but it doesn't show me that angle. So it's  
4 hard -- it does not fit with the reconstruction for the  
5 smashed straight bullet to be from an angled shot, it's  
6 more from a straight shot. My position B fits well with a  
7 shot straight into the car metal that cause it to smash and  
8 then get trapped in the door where it was -- where it was  
9 ultimately documented.

10 **Q. Does it have any impact on your conclusions to**  
11 **match which bullet matches which bullet strike?**

12 A. It can. It depends on how you -- how you  
13 consider it, bullet E -- bullet path E actually made it  
14 into the interior of the back seat and so that bullet is at  
15 an angle that I would have to consider, could it have come  
16 through the glass or through the opening created by the  
17 open glass when the glass fell in, so that's just part of  
18 the reconstruction. Again, it doesn't -- it doesn't inform  
19 me a whole lot about this, it doesn't really matter a whole  
20 lot what projectile caused it, but it did -- it does fill  
21 in what the appearance of that bullet is and it resolves  
22 other questions that, you know, so what bullets are we  
23 missing, we're missing probably bullet C and D or E, one of  
24 those two, those are the two that we're missing. So it  
25 just goes to my process of bullet accounting, bullet

1 tracking, can I track a bullet from the time it leaves the  
2 gun until the time it comes to rest, so that's more of the  
3 exercise there. And, again, you don't always know in  
4 reconstruction what the questions are going to become, so  
5 that's -- that's part of why this process is documented in  
6 the way I do it, the way I did it.

7 **Q. So this is more a matter of complete -- a**  
8 **complete data set?**

9 A. Yes, I call it bullet accounting, I try to  
10 account for every projectile that was delivered in this  
11 event, of course here we only have three recovered and I've  
12 accounted for one, it doesn't -- it doesn't change the fact  
13 or the angles that were delivered, it doesn't create a big  
14 aha moment, which I like, because if it did create an uh-oh  
15 moment or an aha moment, that might affect the  
16 reconstruction, it's like, this bullet doesn't fit with  
17 this track, how did this bullet come to this, but it fits  
18 with the rest of the reconstruction, so it's a completeness  
19 thing in how I approach the methods of reconstructing.

20 **Q. And there's no question here that all five**  
21 **bullets were fired from Garcia's gun and hit somewhere in**  
22 **Desmond or his car?**

23 A. That's correct, the bullet profiles that I did  
24 see are consistent with Glocks, although I wasn't -- I  
25 would have to do more additional work to see if I could

1 identify his specific gun, the fired cartridge cases are  
2 all Glock style cartridge cases, so that would be  
3 microscopy work that could be done. But in the confines of  
4 this, they're certainly not from Franklin's 45-caliber gun,  
5 the only other gun known to be in this limited universe is  
6 the 9-millimeter from Garcia, so I'm willing to make that  
7 assumption in the universe of this scene.

8 **Q. Sure. Moving now on page 11 of 17 of your**  
9 **report under the subheading reconstruction, we've spoken**  
10 **about the bullet trajectories, now it looks like you're**  
11 **speaking about the videos, the video evidence, correct?**

12 **A. Yes. So in the reconstruction is the section**  
13 **where I'm attempting to use my landmarks, my previously**  
14 **documented physical evidence and apply that to the**  
15 **interpretation of the event, the actual reconstruction or**  
16 **what does this all mean that bullets struck here and struck**  
17 **there, so, yeah, a lot of that relies on the video**  
18 **documentation and does it fit with the physical angles and**  
19 **measurements and views that I've already documented or is**  
20 **it -- is it different, do I need to revisit my hypothesis,**  
21 **change, reject my original ideas and accept new ones or**  
22 **not. So that's what this reconstruction is about and**  
23 **that's why it relies on the video record showing where the**  
24 **cars were in relation to each other.**

25 **Q. And in this case did you find that the**

1     **physical evidence that you looked at fit with the video**  
2     **evidence that you looked at?**

3             A.     Yeah, I think it all -- it all agrees, I  
4     didn't find any conflicts that could not be explained by  
5     the landmarks and the physical results that I found with  
6     the bullets, the bullet tracks and the performance of the  
7     projectiles.

8             **Q.     There are a number of videos and photos in the**  
9     **record in this case. Which videos in particular did you**  
10    **rely upon for this section of the report?**

11            A.     Boy, I might have to -- I might have to  
12    research that if I didn't mention it specifically here. I  
13    called it kind of generically on the top of page 11 video  
14    data captured from the Midnight Smoke Shop, and I think  
15    there was more than one camera angle on the Midnight Smoke  
16    Shop, so which specific angle, obviously this is the one  
17    that can see the intersection and the area just to the left  
18    of the intersection, but I don't know the official name of  
19    that without looking up the name in the discovery.

20            **Q.     Do you know if you viewed more than one**  
21    **different video angle or if you just used one video to**  
22    **arrive at this -- these conclusions?**

23            A.     Ultimately I used just this video from this  
24    single camera, but I did view other -- other camera angles  
25    and in doing so I'm looking for other -- other data that

1 might be -- that might support or refute something that I  
2 can say about the shooting aspect of this. So I look for  
3 that other -- look through that other data and information,  
4 but I found this to be the most useful in describing how  
5 the shooting went down and the relative positions of the  
6 vehicles and how the -- how do I get these angular shots in  
7 this dynamic action. So I viewed other videos, there were  
8 definitely other videos provided, but I found that this one  
9 view best identified the conclusions that I found about  
10 this event.

11 Q. Do you remember whether this video that you  
12 primarily relied upon was sort of a mash-up video where  
13 there were spotlights, you know, pointed at the cars at  
14 certain places? There was a video like that that was made  
15 and I'm just trying to figure out if that's the one you  
16 used.

17 A. No, the video I used, my recollection is that  
18 it was essentially a raw video, it was -- there was a lot  
19 of -- a lot of video prior to the cars even arriving into  
20 view of this camera, so nobody had edited parts of this out  
21 or I don't recall anyone highlighting. I recall seeing  
22 that video that somebody did an analysis of highlighting  
23 various positions of it, but that, I used the raw -- my  
24 recollection is I used the raw video because I had to -- I  
25 had to eliminate the front, you know, 20 minutes of that



1 video in order to get to just one section that shows the  
2 positions of the cars.

3 Q. Understood. Thank you. If there's a way that  
4 you can look and identify for me the actual file name or  
5 some identifier for the video that you did use at some  
6 point, I would appreciate getting that information.

7 A. All right. I jotted it down with the other  
8 Ohio cases and so I'll be able to provide that. I'll  
9 probably provide it to the attorneys and they can provide  
10 it to you.

11 Q. Great. Thank you. When you viewed this video  
12 in the course of arriving at these opinions, did you do  
13 anything to magnify or otherwise alter the video when you  
14 were looking at it?

15 A. Yes to magnification. The format of the video  
16 that I was working with here wasn't a common file format  
17 and my recollection was I had to use the proprietary  
18 software that captured the video, in other words, I  
19 couldn't just bring it into any MP4, it wasn't an MP4 in  
20 that I could just manipulate. In that proprietary program,  
21 which I don't remember what the name of it was, it had zoom  
22 capabilities and slow down and speed up capabilities. And  
23 so in capturing these frames I was using both, in some  
24 cases the zoom to try to see if I could see anything more  
25 in it as well as stepping frame by frame forward and

1 backward to move through and look at the relative positions  
2 of cars and then try to marry that to my -- to my  
3 reconstructed angles and such. So I did use the zoom, the  
4 onboard tools that are with the viewer that came with that  
5 video.

6 **Q. Did you run this video through any other kind**  
7 **of software or specialized program in order to come to**  
8 **these conclusions?**

9 A. No, I didn't export it or enhance it or alter  
10 the colors or anything like that, I didn't have the  
11 capability for that. So it was simply using the -- the  
12 onboard tools to -- which had a zoom feature and it had a  
13 frame by frame feature and that's -- that's the only  
14 manipulation I did to the video.

15 **Q. You used the same tools, in other words, that**  
16 **would be available to any person using this software to**  
17 **view this video?**

18 A. Correct, it was provided with the video itself  
19 and my impression was it was proprietary to the camera type  
20 that recorded it, so it was not a common file format so I  
21 had to use their viewer.

22 **Q. Do you have any particular expertise in video**  
23 **analysis that you're bringing to the analysis of the video**  
24 **here?**

25 A. I would say not to technical video assessment,

1 that is timing and frame rates and how video fills in and  
2 connects rolling movement. I do use the video, as I've  
3 identified in some of these diagrams, to isolate  
4 observations, in this case to try to figure out where the  
5 car was in relation to the roadway, one of my diagrams here  
6 points out three bushes that are still there, and so in  
7 combining those it's like, okay, so now I know where -- I  
8 can then go and view where those bushes are and say, okay,  
9 the cars had advanced to this point. So using it  
10 analytically like that I do -- I used in this case and do  
11 that frequently for assessment, but enhancing, determining  
12 the timing and the properties of the -- of the exposures  
13 and frame rates, I don't do any kind of analysis in that  
14 regard.

15 Q. Okay. So you're viewing the video as any  
16 layperson would, but your analysis is in service of your  
17 expertise in reconstruction, is that fair?

18 A. I think that's accurate, yes.

19 Q. Looking down below this subheading  
20 reconstruction at some of the assumptions that you're  
21 making from viewing the video, in the second subbullet  
22 point you find that the -- the first shots from Officer  
23 Garcia could generally align with the fatal shot and the  
24 shot you've labeled B, that's -- that's correct?

25 A. Yes.

1           Q.       So this fits with what we discussed earlier,  
2       that this substantiates your conclusion that these were the  
3       first two shots and one of them was the fatal shot?

4           A.       Yes, that's true.

5           Q.       Looking down below that, the third main bullet  
6       point, you find as the progression continues the Ford  
7       passes the Honda, the perspective shows Officer Garcia  
8       possibly with the firearm pointed at a forward angle  
9       towards the Ford?

10          A.       Yes.

11          Q.       What is the basis for that conclusion, the  
12       possibly with the firearm pointed?

13          A.       When you look at, and I've isolated that as my  
14       figure 11, page 13, when you look at that view there is a,  
15       I'll call it a bright spot that shows up in those -- in  
16       that frame, the one I isolated in my report, and the frames  
17       around it, and that appears, and I think I've seen other  
18       images that were enhanced by somebody, that appears that  
19       that may be a firearm that is positioned adjacent to the  
20       mirror there. Now, it's not so clear that I can physically  
21       make out the firearm, but knowing that these shots are  
22       occurring at this angle and that I have a shot that goes  
23       through the mirror, for example, would fit with this  
24       alignment and the appearance of this -- of this frame  
25       capture in the video that's rolling from the Smoke Shop, so

1 that's why I say I'm not certain it's a gun, I've seen a  
2 lot of videos that there's -- there can be tricks of the  
3 light, somebody's watch can reflect at a particular time  
4 and it's -- it's not -- it's not a muzzle flash or it's not  
5 a bullet impact impacting and sparking, so I try to be  
6 careful and conservative with what that is. But I  
7 certainly could see the alignment, the position and the  
8 object appearing in those frames certainly could be a  
9 position when the two cars are aligned and fits with the  
10 latter shots, D and E, could be -- could be approximately  
11 the time one of those two shots was delivered.

12 Q. Is this why you qualify that finding with the  
13 word possibly?

14 A. Yes.

15 Q. You can't say for sure that that's what's  
16 pictured?

17 A. Correct, correct.

18 Q. Moving down, right below that you say,  
19 "Collectively these videos indicate the following," and  
20 under the first subpoint there, "The Ford had to catch up  
21 to Garcia's Honda and both were moving forward as they  
22 crossed through the intersection." What do you mean when  
23 you say catch up to?

24 A. The documentation in the videos, including  
25 other views, show that the -- the Ford was behind, it came

1 from a position behind Garcia's Honda, and so the Ford,  
2 none of these shots were from front to back, they were all  
3 sideways or diagonally forward, so for those shots to be  
4 even available the Ford has to catch up and at some point  
5 become parallel to the Honda. Some of the statements  
6 offered, particularly by Badley, indicate that they were  
7 stopped side by side at the stoplight and they started  
8 shooting, and so I don't think that's supported by the  
9 physical evidence and the appearance of these videos, it  
10 clearly shows movement and no gunshots, the cars are not  
11 aligned in a position where a gunshot could be delivered  
12 until they begin to move through the -- the intersection.  
13 So that's the -- the purpose of that kind of statement,  
14 it's testing a witness statement, Badley's statement, the  
15 shooting began as the car pulled up side by side. I say  
16 catch up, the Honda had to catch up because it was  
17 physically behind, it came from behind the Garcia vehicle  
18 and then came up alongside of it, so it -- it had to catch  
19 up to Garcia.

20 Q. Okay. So the video, first of all, the video  
21 that you viewed you believe matches with your conclusions  
22 that we've already discussed, that when Garcia started  
23 shooting the cars were approximately parallel and then  
24 continued shooting and Desmond's car continued moving  
25 forward, that's right?

1 A. Correct, yes.

2 Q. So the cars, you believe, were not fully  
3 stationary at the moment of the shooting, in other words?

4 A. Correct, I -- that is not consistent with the  
5 physical evidence.

6 Q. And when you say catch up, is what you mean is  
7 Desmond's car started from behind Garcia's car and ended up  
8 in front of Garcia's car?

9 A. Yes.

10 Q. And as you say, later the cars are generally  
11 aligned side by side when the shooting begins?

12 A. Yes.

13 Q. Moving to the next page, page 12, the second  
14 bullet point on that page, when you say the Ford had pulled  
15 ahead of the Honda just north of Riverside Cemetery, what  
16 do you mean when you say pulled ahead?

17 A. So the relative position between the Ford and  
18 Garcia's vehicle, by the time they arrived to the cemetery  
19 sign, which was a sign that was -- that was still there, I  
20 think it's still there now, the video documentation shows  
21 that the Ford is physically ahead of the Honda, and so what  
22 I'm trying to describe there is that the, again, whether  
23 it's both cars were moving forward, so whether it's one car  
24 slowing while the other continues, one car accelerating, or  
25 a combination of both, I can't say, but by the time

1 Garcia's car is aligned with that cemetery sign in that  
2 figure 11, page 13, clearly the Ford, Franklin's car, is  
3 ahead of his vehicle and the two vehicles -- there's no  
4 evidence that would suggest the two vehicles ever caught up  
5 to each other past that point because Garcia stops shortly  
6 after this sign. So this figure 11, page 13 kind of  
7 represents the end of a shooting sequence. So I have an  
8 image of the start of the shooting sequences when they're  
9 generally side by side, I depicted that in figure 10, and  
10 then the cars' relative positions change to where the Ford  
11 is ahead of the Honda and that's by figure 11, those  
12 landmarks, the bushes and the cemetery sign give me a  
13 distance, a position. Now, I don't know how fast these  
14 cars were actually moving, but it does give me a limit as  
15 to the location where the gunshots are occurring -- had  
16 occurred, and then of course there are some photos that I  
17 didn't rely heavily on of physical evidence in the street,  
18 the broken pieces of mirror and so forth that also helped  
19 define some of the elements of this. So in using this part  
20 of the reconstruction I'm trying to define where the  
21 shooting occurs and then using that to consider what  
22 primarily Badley and Garcia are saying about the event.

23 **Q. So when you say, in this section, caught up**  
24 **and pulled ahead, all you're referring to is the position**  
25 **of the cars relative to one another?**



1           A.       Correct, yes. I -- I do not have any  
2 independent data or any analytical data that would talk  
3 about the velocity of each car or if one was slowing while  
4 the other was accelerating, all I know is that the -- the  
5 Ford advanced faster than the Honda, that's the only way in  
6 this scene to get the diagonal, both the side shots and the  
7 diagonal shots, and that passing event occurred between the  
8 bushes and the cemetery sign.

9           **Q.       Then you do say right above figure 9 on page**  
10 **12, "A reasonable average time to deliver five shots**  
11 **without delay between shots is between 1.25 and**  
12 **1.65 seconds." And what was your basis for that?**

13          A.       There is a -- there is some published  
14 literature on that, I've also conducted a series of  
15 personal experiments, I've been tracking how fast different  
16 people, different age groups and different abilities can  
17 shoot, and so personal knowledge as well as some of the  
18 published literature, and that value that I cited earlier,  
19 somewhere between four -- three or four shots per second is  
20 a very common average for a semiautomatic pistol, for  
21 discharging a semiautomatic pistol. So it represents a  
22 minimum time, but, of course, given the distance between  
23 the three bushes and the sign, all the shots have to occur  
24 in that zone because then the cars are out of position and  
25 so five shots have to be delivered in that time frame, and

1 watching the progression of the video would indicate that  
2 it's probably on the order of what I've cited here,  
3 somewhere between one-and-a-quarter up to, I'll say  
4 two seconds to deliver those five.

5 Q. I'm going to flip to page 14 of 17 of the  
6 report which lists what you call your conclusions.

7 A. Yes.

8 Q. Before we discuss those, is there anything --  
9 anything else, any other findings that haven't been  
10 captured here, that we haven't already discussed that you  
11 used to inform these conclusions?

12 A. No, no, that's the totality of the -- of the  
13 data analysis I conducted, and this is meant to be a  
14 summary of the findings earlier in the report.

15 Q. The conclusion section is meant to be a  
16 summary of the earlier findings?

17 A. Yeah, they're -- I try, maybe you'll correct  
18 me, I try not to introduce any new concepts in the  
19 conclusions, so they are a summary where I may have taken a  
20 couple of photographs and paragraphs to discuss them in the  
21 results section, these are meant to just summarize very  
22 quickly and reference you back to those -- the body of the  
23 report.

24 Q. I see. So these are not necessarily  
25 independent opinions, rather, these are summaries of your

1 **prior findings?**

2 A. Correct, these should all be supported by the  
3 data that's in the rest of the report in the earlier  
4 portion of the report.

5 Q. Okay. So the first three subparagraphs under  
6 conclusions, these have to do with what happened prior to  
7 the shooting, correct?

8 A. Correct.

9 Q. And what is the basis for those, that you  
10 discussed earlier in the report?

11 A. So of course the -- the record described by  
12 Badley and Garcia talk about this -- this confrontation  
13 that occurred in the theft of the convenience store, I  
14 include that here, not because I have an independent test  
15 that I conducted, but because it sets -- it sets up that  
16 they did have an encounter, there is some connection  
17 between these two prior to shots ever being established, so  
18 that's why I add those descriptors. I also want to  
19 describe for the reader of this how did these guys even  
20 come to be on the same road at the same time. So this  
21 first three are a progression of how we get to the meat of  
22 the physical evidence that I evaluated.

23 Q. Okay. And these -- these sort of three  
24 photographs about the background, these are based upon what  
25 you consider to be undisputed facts?

1           A.       Yes, these are common to all the descriptions  
2 that I was aware of.

3           **Q.       These are not based upon evaluating the**  
4 **credibility of any statement?**

5           A.       No, no, they don't speak to the credibility of  
6 any statements and they're statements that I feel are  
7 supported by the totality of the evidence, whether it's the  
8 video evidence showing the progression of vehicles, and  
9 there is some evidence that shows the arrival of Garcia in  
10 the area of the convenience store, so starting way back  
11 there, there's a connection between these two people or  
12 these two cars starting back from there. Of course  
13 evidence by there are two cases of soda in the vehicle,  
14 Garcia claimed that he witnessed the theft of those two  
15 objects which caused him to utter a statement or something  
16 like that. So that makes sense that that interaction  
17 occurred back by the convenience store and that put these  
18 guys on this path that resulted with the rest of the  
19 analysis.

20           **Q.       And the significance of these facts for your**  
21 **purposes is to set the background context for the reader?**

22           A.       Correct, how did these cars even come to be  
23 adjacent to each other for the gunshots to be delivered.

24           **Q.       Then moving down to the fourth subparagraph,**  
25 **we've already discussed your finding that the two cars when**

1 the shooting began were aligned generally side by side, but  
2 you can't say exactly the assignment, correct?

3 A. Correct.

4 Q. Next you say, "Officer Garcia reported seeing  
5 a firearm pointed at him which caused him to acquire and  
6 shoot his firearm." What is the significance to you of  
7 including that?

8 A. Because something -- because Officer Garcia is  
9 not -- does not -- there's no evidence that he's randomly  
10 shooting in this environment, so something caused Garcia to  
11 go from driving to driving and shooting, and so what Garcia  
12 says is that he saw a firearm and when he saw the firearm  
13 he drew his firearm and fired at the, what he perceived as  
14 a threat. So I include that because that's what he's -- he  
15 said he saw, that's why he started shooting. That is -- so  
16 in evaluating that -- that statement, there is a firearm in  
17 the Ford, so if a firearm, he could have seen that firearm,  
18 and that's why I include it here that that's what he  
19 reports causing him to initiate the gunshots that he  
20 delivered, so that's -- that's all that's meant by that  
21 statement.

22 Q. Are you crediting or discrediting that  
23 statement by Garcia one way or another in coming to any of  
24 your opinions?

25 A. I think that there is evidence to support that

1 he did see a firearm, I think I speak to it more in the  
2 rebuttal report, but he, after the car -- after the Ford  
3 crashes and he advanced and he's on 911 he does make the  
4 utterance about where's -- where's the gun, so somehow he  
5 knows there's a gun involved in this, in this event, so if  
6 he didn't see it, it's conceivable that he's just guessing  
7 there's a gun, I mean, that's a possibility, but that there  
8 is a physical gun in the Ford would suggest to me that he  
9 did, in fact, see a gun and knew that there was a gun in  
10 the Ford.

11 Q. Okay. So that -- the 911 call that he made  
12 and the presence, the ultimate presence of the gun in the  
13 Ford, those two things suggest to you that Officer Garcia  
14 did, in fact, see a gun before he -- before he acquired and  
15 shot his gun?

16 A. Yes.

17 Q. Okay. Do those things suggest to you that he  
18 saw a gun in the car at some point before he reported  
19 seeing the gun pointed at him?

20 A. That I don't know. I don't know when he --  
21 other than when he described seeing the gun, and of course  
22 Badley describes providing the gun to Franklin, so at what  
23 point if he saw during that transaction the gun being  
24 handed over, I don't know. Garcia only recalls seeing the  
25 gun pointed in his direction and he claims that's the

1 stimulus that caused the reaction of him firing. Whether  
2 that was the actual stimulus that caused him to fire or he  
3 just began firing, I don't think I can say the difference,  
4 I don't think I would be able to determine the difference  
5 based on the bullet paths.

6 **Q. So what is the significance of including this**  
7 **fact, Officer Garcia's report about seeing the firearm, to**  
8 **your conclusions about the shooting reconstruction?**

9 A. Because some stimulus, in my opinion, some  
10 stimulus caused Garcia to shoot his gun and it caused him  
11 to shoot his gun at a point in time when the two cars were  
12 parallel to each other, he did not shoot at the convenience  
13 store and he didn't shoot rearward at the vehicle, it was  
14 at a time when the gunshots, the physical paths of the  
15 initial gunshots are at a time when the two cars were side  
16 by side. So it fits with the physical evidence in my view,  
17 and the reason I include this -- this statement is because  
18 I feel that there has to be some stimulus for Garcia to  
19 start shooting at the point in time when they were both  
20 cars aligned by the three bushes, not at the stop sign, not  
21 forward of the stop sign, and no shots were delivered  
22 before or after this, that sequence. So what I guess the  
23 investigative question, the hypothesis, the hypothesis is  
24 Garcia saw a gun and reacted by shooting, and then the  
25 examination would be is that supported or refuted by the

1 physical evidence, well, there is a gun, if he didn't see a  
2 gun then he's just shooting into -- into a car adjacent to  
3 him, I'm not aware of him shooting any other cars adjacent  
4 to him, so that statement of Garcia seeing a gun is  
5 supported by some of the physical evidence, the presence of  
6 a gun, Badley providing a gun to Franklin for reasons  
7 unknown, so that's why -- that's why that's included, I'm  
8 looking for position as to why would Garcia start shooting  
9 at that time on that highway and he says it's because he  
10 saw a firearm.

11 Q. So you believe, based upon your own expertise,  
12 that there had to have been a stimulus at that moment that  
13 would cause Garcia to shoot his gun?

14 A. Yes.

15 Q. And you don't know what that stimulus was  
16 independently based on the evidence?

17 A. That's correct, that's correct.

18 Q. So if you assume Officer Garcia's report as  
19 true, you can make some assumptions about what that  
20 stimulus was?

21 A. Yes, yes, you -- well, you have to test  
22 Garcia.

23 Q. Uh-huh.

24 A. Garcia's statement is not -- is not -- is  
25 never accepted on face value, Garcia's statement has to be



1 accepted or refuted based on physical evidence, so he says  
2 he saw a gun, first question for my data section of my  
3 scientific method, is there a gun to be seen, the answer is  
4 yes, there is a gun to be seen. Did he fire at any other  
5 point in time other than when the cars were generally  
6 aligned side by side and then continuing while the cars  
7 advance, no, there's no evidence of him firing randomly at  
8 other cars or in another situation. So in testing Garcia's  
9 statement you would say -- I would say that there are  
10 physical evidence elements of the scene that supported  
11 Officer Garcia's statement, so that's why it's included  
12 here. Badley, I can test Badley, Badley says, I never saw  
13 a gun pointed, okay, so you didn't see a gun pointed, let's  
14 test that, where were you looking, were you bent over  
15 forward or leaning significantly backward, were you looking  
16 over at Garcia, I don't know any of that, all I know is  
17 that you provided a gun to Mr. Franklin at his request and  
18 then gunshots came into your car, you recall them happening  
19 at the stop sign, that's not supported by the physical  
20 evidence, and so collectively I begin to go through that  
21 process. The statements that are provided I try to test  
22 against the physical evidence, and so Officer Garcia says  
23 he saw a firearm, he described a firearm being in the car  
24 before it was discovered, so he either guessed that there  
25 was a gun in the car or he actually had seen a gun in the

1 car. If he -- I can't eliminate that he just simply  
2 guessed that there's a gun in the car, so maybe that's --  
3 maybe that's an aspect of the -- of the test that's not  
4 clear in that statement.

5 **Q. Did you test any of Badley's statements in**  
6 **coming to any of your opinions that are captured in this**  
7 **report?**

8 A. Yes, I considered some of what Badley said, I  
9 don't know that they all -- that they -- sometimes they  
10 have to have some bearing in the -- in the report.  
11 Typically when people don't see something it's not a test,  
12 you can't test that, somebody says, I didn't see a gun,  
13 well, I can't test what somebody saw or didn't see or what  
14 somebody remembers or heard, but I can test some of the  
15 elements of what Badley says. Badley says he provided a  
16 firearm, there is a firearm. Badley says that the shooting  
17 started when they were at the stop sign, the stop line, the  
18 stoplight, but that's not supported by the physical  
19 evidence, but I don't know that it's all that relevant in  
20 assessing him. And I want to be clear that in doing this  
21 I'm not trying to say that Garcia is right about everything  
22 he said and Badley is wrong, it's simply the elements that  
23 I can test I try to put some significance to in the report.  
24 So that's the purpose of the conclusion points as they're  
25 outlined here.

1           Q.       Can you test whether Desmond was pointing his  
2 gun at Garcia at the time that Desmond was shot?

3           A.       No.

4           Q.       Looking down on page 14 of 17 to your report,  
5 the conclusion section, in the sixth paragraph down you  
6 say, "Officer Garcia accessed and fired his weapon." When  
7 you say accessed, can you explain what that means and  
8 whether you have any -- drew any conclusions based upon  
9 that?

10          A.       It's simply meant to be a descriptive term,  
11 the gun was, I'll say it this way, the gun was accessible  
12 to him, so he accessed the gun and he had to -- he had to  
13 acquire the gun is all I really mean by that. So I don't  
14 know if he drew it or had it sitting out or kept it on the  
15 seat adjacent, I don't know any of that, but however he got  
16 it in his hand, he accessed it, because he can't deliver  
17 those shots without pulling the trigger, and so that's all  
18 I meant by accessed his firearm, and I'm not trying to  
19 indicate where the gun was or in what capacity he stored  
20 the gun.

21          Q.       Okay. So you didn't, in your evaluation of  
22 the crime scene, you didn't form any opinions about where  
23 his gun was before he started shooting it?

24          A.       No, like Franklin's gun, a gun in open space  
25 or in a position prior to the discharge of it or the

1 revelation of it can't be determined, so where it was  
2 before Garcia accessed it, I don't know, and I'm not -- I'm  
3 not trying to evaluate that.

4 Q. Moving down to the final three paragraphs  
5 under conclusions, you believe that the best fitting bullet  
6 for the one that killed Desmond Franklin was the first  
7 bullet that Garcia shot, is that correct?

8 A. Yes, that's true.

9 Q. You believe that Devin Badley was right there  
10 in the passenger seat but did not interfere with that  
11 bullet path when the fatal shot came?

12 A. That's correct, he was not in line with that  
13 shot.

14 Q. And you conclude that the gun that was in  
15 Desmond Franklin's car was found at his feet on the  
16 driver's side of the car, correct?

17 A. Yes.

18 Q. And that's the only position that you can  
19 place the gun in at any point based on the physical  
20 evidence?

21 A. Correct, correct. The end position of the gun  
22 is all we can deduce with any certainty.

23 Q. Outside of the rebuttal opinions, which we'll  
24 get to, do you have any other opinions to express in this  
25 case that were not covered in this report or in our

1 **discussion of it just now?**

2 A. I can't -- I can't think of any other topics  
3 or areas that I would introduce beyond what we've  
4 discussed.

5 MS. BONHAM: Okay. Can you guys give  
6 me another two-minute break, we'll go through  
7 the rebuttal report and then I won't have too  
8 much left for you today.

9 THE WITNESS: Okay. That's fine.

10 (Brief recess was had.)

11 Q. I'm looking now at what I marked for the  
12 deposition as **Exhibit D**, the rebuttal report that you dated  
13 9/14/2023. Do you have that pulled up?

14 A. Yes, I have a hard copy in front of me.

15 Q. Okay. Were you asked to provide the rebuttal  
16 report as to the opinions of both of plaintiff's experts in  
17 the case?

18 A. Yes, I was provided their -- the two expert  
19 reports and asked if there was anything that I would rebut  
20 by the attorney that hired me.

21 Q. And this is a consolidated rebuttal as to both  
22 of those reports?

23 A. Yes, just in formatting them, because there  
24 was some overlap between the two reports, I found it easier  
25 to just combine them where there was an opinion that I

1 wanted to express.

2 Q. And is this rebuttal report based upon the  
3 same methodology that you described using for your  
4 preliminary report?

5 A. Yes, the statements here are basically  
6 opinions offered and I use that as the basis of my test or  
7 the hypothesis and then I consider and test whether or not  
8 those are supported or refuted by the physical evidence in  
9 the event. So same process as the mechanical  
10 reconstruction, the original reconstruction.

11 Q. Your rebuttal opinions are also based on the  
12 scope of your expertise in, as a scientist in forensic and  
13 shooting event reconstruction, is that correct?

14 A. Yes, and in this event, since blood stain  
15 pattern analysis was also opined, I do rely on my  
16 experience in blood stain patterns as well.

17 Q. I want to look briefly through these  
18 rebuttals, and these are numbered, is that correct, 1  
19 through, I believe, 7?

20 A. That's correct.

21 Q. And this is the totality of your rebuttal  
22 opinions in the case, correct?

23 A. Yes, based on -- based on my review of the  
24 experts, these are the key points that I felt I needed to  
25 address.

1 Q. Looking at number 1 on page 1 of 7 of the  
2 rebuttal report, you rebut that you call the implication  
3 that Desmond Franklin cannot be looking forward and  
4 pointing a gun at Garcia at the same time, correct?

5 A. Yes.

6 Q. So as we've already discussed, you -- you  
7 yourself conclude that Desmond Franklin, when he was shot,  
8 he was shot in the right temple, correct?

9 A. Yes.

10 Q. And that that means that, based upon your  
11 expertise, the right temple had to be facing the gun that  
12 shot him at the moment he was shot?

13 A. That's true.

14 Q. So you have no dispute with that, that's not  
15 in dispute among the experts in the case?

16 A. No, that -- that has to be accepted that the  
17 head -- the head position as you just described has to be  
18 the approximate position for that bullet to arrive and hit  
19 the way it did.

20 Q. Your issue is with an inference that someone  
21 has to be looking at the target when they shoot, am I  
22 getting that right?

23 A. Yes, my interpretation of multiple positions  
24 in the Balash and Tucker reports, and I've italicized them  
25 as quotes from their report, they talk about he could not

1 have been pointing a gun in the direction of Garcia causing  
2 that, what I called a stimulus earlier, because he was  
3 looking forward, and from an analytical perspective those  
4 are mutually, what we call mutually exclusive events, you  
5 can point your arm to the right and continue to look  
6 forward and it also, it can speak to the instant the bullet  
7 arrives he's looking forward, but of course there might be  
8 seconds before the decision to shoot and the first bullet  
9 is actually delivered where he was looking right and then  
10 had adjusted his head back to forward again. So the  
11 concept that they both seem to embrace that he couldn't  
12 have shot, he couldn't have pointed a gun because he was  
13 looking forward is a fallacy in my view.

14 **Q. Your only conclusion as to where Desmond**  
15 **Franklin was looking is based upon the bullet entrance to**  
16 **his head, is that correct?**

17 **A.** Correct, and I don't know what he was looking  
18 at, but I know his head position has to have the right side  
19 of his head facing the gun, the source gun, Garcia's gun.  
20 So that, the right side of his head has to be generally  
21 facing forward, his head has to be facing forward  
22 approximately for the bullet to cross the interior and  
23 strike him in the side of the head.

24 **Q. So in this situation that means his forehead**  
25 **had to be pointed across the steering wheel towards the**



1 road, looking out at the road?

2 A. Correct, his head position is generally in  
3 that orientation.

4 Q. So your position is if he's looking towards  
5 the road he could still be pointing his arms in any  
6 direction?

7 A. Of course, that captures my criticism of those  
8 statements.

9 Q. And that's a conclusion that you are drawing  
10 based upon analytical sense, that's your basis for that  
11 conclusion?

12 A. Correct, the hypothesis they proposed was that  
13 you could not point a gun while looking forward, and when I  
14 test that with my common sense to include 35 years of  
15 driving experience, knowing how to operate a car, and  
16 informs me that that is not a true statement, that  
17 hypothesis that they both presented is not supported by the  
18 evidence.

19 Q. You, based upon the physical evidence and your  
20 expertise, you can't put Desmond's hands in any particular  
21 position at the moment he was shot, is that correct?

22 A. That's correct.

23 Q. We spoke before about -- a little bit about  
24 the angle of the head and you indicated that you don't have  
25 biomechanical expertise that would allow you to express the

1     **angle that Desmond's head would have been at when it was**  
2     **shot, correct?**

3             A.       Correct.

4             **Q.       So the figure 1 to the rebuttal report, which**  
5     **shows some computer rendered drawings of a person, what do**  
6     **these purport to express?**

7             A.       So these are computer models that I generated  
8     to simply show what was described in the written portion of  
9     the rebuttal on page 1, and so the diagrams are used,  
10    again, I find that I do better with a visual support, a  
11    demonstrative exhibit in conjunction with the words and  
12    descriptions, and so this is my attempt to model a  
13    mannequin and show how the head can be facing forward or  
14    even slightly twisted toward the right, which is what the  
15    autopsy indicates, and still have your arm pointed in a  
16    direction that would be visible to a viewer from an  
17    adjacent car, so that's what these models are meant to  
18    show. The opposition experts said you can't do this, that  
19    this is not possible and I would argue that these images  
20    show that it is possible.

21            **Q.       These images don't purport to express the**  
22    **actual angle of Desmond's head, right?**

23            A.       Correct, I can't determine his actual angle  
24    other than his right side of his head was facing the gun.

25            **Q.       These images don't purport to express anything**

1 **about Desmond's actual physical position actually, right?**

2 A. Correct, these were -- these were only  
3 generated to demonstrate that the opinions by Balash and  
4 Tucker are not supported. That these are normal,  
5 reasonable anatomical positions that could be achieved by a  
6 reasonably -- an anatomically reasonable human being would  
7 have the ability to make -- to render these, to achieve  
8 these positions. So it is merely meant to show that the  
9 Tucker and Balash opinion that you have to be looking in  
10 the direction you're pointing is not supported by the  
11 physical evidence. Whether he was actually holding a gun  
12 at this angle at that moment before the bullet arrived,  
13 that I don't know.

14 **Q. Okay. These renderings, in other words, just**  
15 **express that a person can do one thing with his head and a**  
16 **different thing with his arms?**

17 A. Correct, correct, I wanted to demonstrate  
18 visually why that is a reasonable opinion.

19 **Q. Looking at rebuttal opinion number 2, what did**  
20 **you evaluate in order to reach this rebuttal opinion, what**  
21 **data did you look at?**

22 A. So on page 3 I included a figure, again, the  
23 opinion that Balash stated was that he opined that he could  
24 determine how Garcia wore his jacket while seated in his  
25 vehicle and as I -- as I review the data I don't see any

1 data to support that, there's no in-car cameras that would  
2 support that. To demonstrate then, similar to the last  
3 figure, to demonstrate how -- certainly how the jacket  
4 could have been considered or positioned I used a screen  
5 capture from a body camera video of Garcia as he was  
6 captured by somebody else's video and show that, in fact,  
7 in that position he's got the jacket tucked behind the gun  
8 and holster. Again, when an expert reports in their expert  
9 report that something is not possible or not likely, there  
10 needs to be data to support that, so I think that even this  
11 image that's included with the text proves that we don't  
12 know how Garcia carried or wore or sat in his car with his  
13 jacket position, so it's certainly a reflection on what  
14 Balash, how he may sit in his car, but it has nothing to do  
15 with Garcia.

16 **Q. This photo of -- screen grab of the jacket**  
17 **position you took comes from after, you know, the shooting,**  
18 **after Garcia is on scene and he's wearing this in this**  
19 **position, correct?**

20 **A.** Correct, yeah, this is after the crash when,  
21 at some point after when arriving police officers come and  
22 have activated body cameras, so this is a frame grab from  
23 one of the body cams that captured Garcia walking through  
24 the scene that happens to also show his jacket position.

25 **Q. So this shows the jacket position from after**

1 the shooting. Is there any other basis that you use for  
2 the rebuttal opinion, number 2?

3 A. No.

4 Q. Is there a scientific basis for the rebuttal  
5 opinion number 2?

6 A. A scientific basis, it is not the result of  
7 any test, so I would say there was no test performed as to  
8 the position of Garcia's jacket prior to the shooting, so  
9 the answer would be no, there is no scientific test, it's  
10 simply a statement offered by Balash that is not supported  
11 by physical evidence, and so I wanted to rebut that rather  
12 than let it go.

13 Q. With respect to rebuttal opinion number 3,  
14 this talks about the end location of the firearm, correct?

15 A. Yes.

16 Q. What exactly is your basis for this rebuttal  
17 opinion number 3?

18 A. So for an expert report I need to see the  
19 data, the underlying data that would support that opinion,  
20 and so knowing the physical evidence that was provided to  
21 me and knowing that I could not find any physical evidence,  
22 I was looking in their report for what physical evidence  
23 are they relying on to say that the end position of the gun  
24 represents that it couldn't have been pointed earlier, and  
25 I couldn't find any data that would support that, so while

1 they're certainly entitled to write anything they want in  
2 their expert report, but in an expert report you need the  
3 data or the experience or something to demonstrate that  
4 your statement is true, I could not find any data to  
5 support what they're saying that where the gun ended  
6 identifies where it was when the shots began, that's simply  
7 not supported by physical evidence. So, again, in the  
8 rebuttal that's part of -- part of what -- what I'm trying  
9 to do, I'm trying to point out things that I don't feel are  
10 supported by any evidence or anything more than pure  
11 speculation on their part.

12 **Q. Based upon your experience in shooting scene**  
13 **reconstruction, can you make any conclusions about where**  
14 **the gun was in Desmond Franklin's car prior to its -- where**  
15 **it was finally discovered?**

16 A. No, no, I can't position that gun in three  
17 dimensional space in the moments before and through the  
18 shooting, how it may have moved during the course of the  
19 delivery of shots or its potential movement after the  
20 collision and car wreck at the end. So I can't position  
21 Franklin's pistol in space prior to where it ended up at  
22 his feet.

23 **Q. Based upon your experience in shooting scene**  
24 **reconstruction, can you exclude any possibilities about**  
25 **where that gun would have been in the car prior to when the**

1 **car crashed?**

2 A. Yes, it has to be -- it has to enable -- be  
3 able to have access to blood arriving on both sides of the  
4 -- of the firearm and it has to be able to intercept  
5 shattered glass which means to me it can't be protected, it  
6 can't be under somebody sitting on it or in a pocket, those  
7 would protect those areas from receiving the type of -- of  
8 appearance, the glass and blood that's on the gun itself,  
9 so that's -- that's what I would eliminate from this scene,  
10 protected areas that the gun could not have accessed or did  
11 not access because it was exposed to glass and blood. And  
12 so the actual exact mechanism of how it was exposed to  
13 glass and blood, I can't say the specific mechanism,  
14 there's insufficient data for that.

15 **Q. You can't say how the gun was exposed to glass**  
16 **or blood, that's what you're saying?**

17 A. Correct, yes, I don't know the orientation of  
18 the gun based on those deposits or the timing of exactly  
19 when all those -- when those pieces of evidence arrived to  
20 the gun, but it can't arrive if the gun's protected, so the  
21 gun has to be exposed enough to receive those pieces of  
22 evidence.

23 **Q. And the gun has to be exposed enough to**  
24 **receive blood and glass at some point before it was**  
25 **discovered, correct?**

1           A.       Correct, after -- after the initial shot  
2       shattering the glass and before it's recovered at his -- at  
3       the footwell of his driver's seat.

4           **Q.       But you don't believe you can say when or**  
5       **where that gun got blood on it?**

6           A.       No, there was bleeding secondary to the crash  
7       as Franklin was positioned in the seat and so depending on,  
8       now, there is blood on both sides of the gun, which would  
9       indicate that the gun had moved and, but I don't know at  
10      what point it moved to expose one side as well as the other  
11      side. In other words, it can't just be against the ground  
12      or blood would just be coming from above from Franklin's  
13      bleeding wounds, so the gun position moved at some point, I  
14      expect that in the type of collision that was experienced,  
15      it appears to be a significant collision, enough to cause  
16      the airbags to go and the front end to crush. So how it  
17      actually moved and where it was in the moments before it  
18      ended at his feet, I can't speak to.

19          **Q.       You can't say whether or when the gun got**  
20       **glass on it?**

21          A.       Correct, I can't -- I cannot tell you the  
22      orientation or position of the gun when glass arrived.

23          **Q.       You can exclude the possibility that the**  
24       **entire time the gun was put away because otherwise it**  
25       **wouldn't have blood or glass on it, right?**



1           A.       Correct.

2           **Q.       Are there any other possibilities about the**  
3 **location of the gun that you can exclude based upon the**  
4 **physical evidence?**

5           A.       Well, I mean, it does not appear to me that  
6 the gun was in the back seat, I don't expect it to end at  
7 his feet, I mean, it does not appear to have been in the  
8 glove compartment, doesn't appear to have been in a pocket,  
9 does not appear to have been in the center console or  
10 tucked between, for example, between two seats there's a  
11 space where the french fries fall, I would consider that a  
12 protected area of the car, and if the gun were stuffed in  
13 there I would not expect it to have the appearance, so I  
14 think it has to be exposed enough, whether it was  
15 physically pointed in the moments before the car wreck or  
16 pointed upwards, brandished, I don't know, but it  
17 ultimately was not hidden, but I can't tell you where the  
18 gun was in open space prior to the gunshots.

19           **Q.       Why would you not expect it to be in the back**  
20 **seat?**

21           A.       Because of where it was, there's a lot of  
22 restriction under the seats and if the gun were placed in  
23 the back seat and the collision occurs to the front of the  
24 car, which means things from the back can lurch forward,  
25 but it would have had to have lurched under the seat,

1 there's a lot of restrictions under the car seats, humps  
2 and levers that control the seat mechanism, so I don't  
3 expect it to lurch forward and get around those barriers to  
4 end up at his feet. So I think it's -- I think it's  
5 something that's landed at his feet in the commotion of the  
6 collision after the collision.

7 **Q. And what is that conclusion based upon, what**  
8 **experience that you have is that conclusion based upon?**

9 A. Gravity, in part, the gun will try to fall to  
10 its lowest stable point based just on gravity. Inertia and  
11 momentum, which are two ballistic principles, but they  
12 would also apply to the mass of a firearm in that if you  
13 give forward momentum to an object, it will try to carry  
14 that momentum forward as well. Reaction to gunshots, I've  
15 seen people pull their hands in after receiving a gunshot,  
16 those are the kinds of events that I would draw on to say  
17 that I think the gun fell from some area around the front,  
18 around the front seat to his feet ultimately. It's, again,  
19 not a quantitative thing, I can't measure velocity of the  
20 car based on where the gun ended, it's a qualitative  
21 observation based on the presence of a gun at his feet.

22 **Q. And you think the gun fell from gravity to his**  
23 **feet?**

24 A. Yes, I think ultimately wherever it was it  
25 ultimately got displaced by gravity to reach that low point

1 on the floor.

2 Q. And you've held that gun that Desmond had in  
3 the car yourself, right?

4 A. Yes.

5 Q. So that's a heavy object, it's not like a  
6 feather or a piece of paper, right?

7 A. Correct, it's approximately two to  
8 two-and-a-half pounds the way it was loaded, so the gun  
9 magazine and I think there were three or four cartridges  
10 with the gun, so collectively that represents about  
11 2 pounds, 2-pound, two-and-a-half pound weight.

12 Q. So, for example, if it was in the -- in the  
13 back of the car it couldn't be, you know -- you wouldn't  
14 expect it to be knocked so far that it fell up to Desmond's  
15 feet, it's a heavy object, it would encounter a barrier?

16 A. That's correct, that's my expectation,  
17 although I've never tested that specific property.

18 Q. And you didn't perform any tests independently  
19 to evaluate where the firearm may have been at any point  
20 inside the car?

21 A. No, I did not.

22 Q. Looking down to rebuttal opinion 4, you do say  
23 that some of the pistol received more blood than other  
24 parts of the pistol, is that correct?

25 A. Yes.

1 Q. The one in Desmond's car?

2 A. Yes.

3 Q. So your conclusion is that it couldn't -- the  
4 pistol couldn't have been wholly put away because it got  
5 some blood and glass on it, right?

6 A. Correct, yes.

7 Q. Okay. But the blood and glass wasn't  
8 completely all over it?

9 A. No, there was more blood on the top and sides  
10 of what's called the slide area of the gun, which is the  
11 top, the top and the upper left and right side. There was  
12 some blood on the grip area but less blood on the grip area  
13 and less glass on the grip area than on the top of the gun.  
14 So there is, based on the original photographs,  
15 preferential depositions of blood in those particular areas  
16 on the tops and sides, same with the glass, preferentially  
17 deposited on the right side of the upper slide, but, again,  
18 those are difficult to interpret why those specific areas  
19 were saturated or deposited on in preference to other areas  
20 and why some others receive less blood, so it's not a  
21 uniform event. And, again, these are aspects that I didn't  
22 address in my initial report because I think they were too  
23 complicated to address, but when the opposing experts begin  
24 to opine about blood stain patterns then I'm compelled to  
25 rebut that in my opinion and identify what the limits are

1 and where they've overstated the limits to the best of my  
2 ability. In this rebuttal opinion the descriptions  
3 provided are not common blood stain pattern terms, I  
4 included some terms at the end, so I had to try to  
5 understand first, what was -- what were they trying to say  
6 about the blood deposits, because they're not following  
7 normal descriptions and nomenclature, so propelled blood, I  
8 knew that Badley described a fountain of blood, or a warm  
9 liquid, which I presume to be blood emanating from the --  
10 what has to be the entry wound of Franklin, and so blood, I  
11 expect blood to squirt out of that entry wound and Badley  
12 described that, I would say that's a supported observation,  
13 and if there was a gun in the -- in the interim space it  
14 could receive that back spatter of blood from the entry  
15 wound, it got to Badley, so blood is being propelled  
16 through the cabin of the car.

17 Q. And when you say interim space, you mean the  
18 space between Desmond and Devin?

19 A. Correct, yes.

20 Q. Then your ultimate conclusion, looking at page  
21 4 on this, is that you can't identify where, quote, "Where  
22 the gun was pointed in the moments before Garcia delivered  
23 the gunshots"?

24 A. Correct, the blood will not inform that.

25 Q. If it was pointed anywhere, I mean, that's --

1 A. Correct, that's --

2 Q. You don't have an assumption that it was?

3 A. Yes, I agree, the position of the firearm in  
4 the instant or the moments before the first shot arrived  
5 into the vehicle, into the Ford can't be determined, we  
6 don't have data to identify that.

7 Q. Okay. Looking at rebuttal opinion 5, can you  
8 explain to me what is the significance of this -- of this  
9 rebuttal opinion, what does it mean?

10 A. So in the -- in the Balash report he included  
11 a fairly lengthy description about, I think he was speaking  
12 to the lack of collection of the holster and he implied  
13 that the presence of the holster could have had significant  
14 bearing on his interpretation, but then he goes on to say  
15 that he has enough data to provide his interpretation, so  
16 to me I wanted to point that out in a rebuttal, because you  
17 either are limited by that or you have enough. If your  
18 opinion is, I don't have the holster so I can't evaluate  
19 it, that's fine, but to say that I don't have the holster  
20 but I can evaluate it anyway is -- there's no point to that  
21 other than to try to diminish what was collected in this  
22 event. So, again, in a rebuttal report such as this I have  
23 to decide, do I want to address a particular issue or  
24 something that I see is, in this case, I would say  
25 frivolous, or leave it alone. And so I thought it was

1 important enough to mention that the implications in his  
2 report that without the holster he can't do anything are  
3 not true, he did all kinds of evaluation with the holster  
4 and ultimately opined that the type of holster that Garcia  
5 had would perform in a particular way, I don't claim to be  
6 a use of force or a holster expert so I don't know the  
7 mechanical advantage or disadvantage of Garcia's holster,  
8 but if he doesn't have sufficient to opine then he  
9 shouldn't opine. That was the point of my rebuttal number  
10 5.

11 **Q. So on number 5 you're not disagreeing on a**  
12 **scientific basis or a scientific finding with Balash,**  
13 **you're -- correct?**

14 A. Correct, I don't -- I don't have an opinion  
15 about the holster's -- Garcia's holster role in the overall  
16 event, I don't have any -- any opinion whatsoever. I do  
17 look for, in expert reports, some of -- the last term I  
18 mentioned here where I quote him, Balash opines that the  
19 investigators were not concerned or interested in an aspect  
20 of this, well, I don't know if that's true or not, I don't  
21 know if they cared or not, and he doesn't know if they  
22 cared or not, his interpretation might be that they don't  
23 care but you can't say that somebody else didn't care about  
24 this crime scene because they didn't collect a holster for  
25 you, it's an inappropriate statement because it can't be

1 substantiated with any physical evidence or facts or data,  
2 it's just his opinion, he wishes -- he felt that the  
3 examiners were not concerned or interested in processing  
4 this scene, well, they did what they did and that's what we  
5 can evaluate, so that's part of that substance 5 as well.

6 Q. All right. So you don't have a scientific  
7 basis to differ from him with respect to number 5, it's a  
8 -- you don't like his analysis basically or his style on  
9 this one?

10 A. Yes, he's -- as in the other points, he's made  
11 statements that are not supported by any data, they're  
12 simply criticisms of what he sees in this report.

13 Q. Moving to rebuttal opinion 6, this has to do  
14 with the trigger disconnect or the safety on the gun that  
15 was in Desmond Franklin's car. I think you started  
16 explaining this to me before, but can you explain the  
17 significance of how you know -- how a user of that gun  
18 knows that the gun is in the on safe position?

19 A. So visually if you -- if you have time and you  
20 inspect the position of the lever itself, that would be one  
21 thing, if you know the gun and you know the arrangement of  
22 the gun, you know what the angle lever is in the on safe  
23 position, so that would be the first thing. What Balash  
24 implies here is that Franklin would have known right away  
25 that he was in an on safe condition because the trigger of



1 the trigger disconnect, and that is what I referred to  
2 earlier as the slack in the trigger, but to know that you  
3 have to pull the trigger, so if it is Balash's opinion that  
4 Franklin would have known that he was on safe, then that  
5 means Franklin pulled the trigger by his description of the  
6 -- of the trigger disconnect. So if Franklin is pulling  
7 the trigger of a loaded gun inside of his vehicle, I assume  
8 he's intending to fire but did not fire because his safety  
9 was on, but the only way he can know from the trigger  
10 disconnect is to fully pull the trigger to the rear and  
11 realizes it's not firing the gun. So Balash has opined  
12 that he would have known because of the trigger disconnect,  
13 I rebut that by saying he would have had to pull the  
14 trigger to know and if he's pulling the trigger then he's  
15 intending -- you don't pull the trigger of a gun that you  
16 don't intend to shoot, so he's intending to try to -- if  
17 he's pulling the -- if he's pulling the trigger then he's  
18 trying to discharge the gun, there is no process in this  
19 environment where you would pull the trigger and hope that  
20 your gun doesn't fire, that doesn't make any sense. And he  
21 would if he knows the gun, recognize, after he's pulled the  
22 trigger, this trigger has slack, it's on safe, and I think  
23 if that occurred, if that thought process occurred to  
24 Franklin, I think that he was then subsequently shot before  
25 he could flip the switch and make the gun work properly, if

1 -- if he recognizes what Balash has -- has given him credit  
2 for.

3 Q. The hypothetical that you just posed is based  
4 upon an assumption that Desmond's playing with the trigger  
5 at the same moment he's trying to shoot a gun, right?

6 A. Not playing with the trigger, you would have  
7 to pull the trigger.

8 Q. Pulling the trigger at the same moment he's  
9 going to shoot the gun, the hypothetical that you just  
10 posed is based upon that assumption, also hypothetical?

11 A. Correct, in my experience people do not pull  
12 the trigger of a gun until they're trying to initiate a  
13 gunshot. It's not a reasonable way to check whether your  
14 safety is on or off by pulling the trigger, because if it's  
15 off, his gun was loaded with a round in the chamber, if the  
16 gun was off, wherever it was pointed, a bullet would have  
17 come out at 900 feet per second and hit whatever was in  
18 front of it, so it is not an effective way to check whether  
19 a safety is on or off. But if he, as Balash -- Balash  
20 proposed that's what he did or that's what he would have  
21 done in his quote there, if that's what he did then he was  
22 trying to discharge the firearm by pulling the trigger, in  
23 my opinion.

24 Q. Okay. You conclude, just to make sure I get  
25 this right, your opinion is that if Desmond had pulled the

1 on safe trigger of his gun while in the car, the only thing  
2 he could be doing is trying to shoot someone?

3 A. That is my opinion, yes. Well, I don't know  
4 if he's trying to shoot someone, he's trying to discharge  
5 his gun.

6 Q. Okay. The only thing he could be doing is  
7 trying to discharge the gun?

8 A. Correct, because it is not an appropriate way  
9 to check if you're on safe or not on a pistol that is  
10 loaded with a round in the chamber, because if it's off  
11 safe you just fired the gun.

12 Q. If the gun -- this particular gun is on safe  
13 you can visually tell, someone can visually tell, as you've  
14 described to me before, that it's on safe, correct?

15 A. Yes, there are the external levers, what I  
16 referred to earlier, ambidextrous safety, a lever on each  
17 side of the back of the gun, so if you visually inspect the  
18 gun and you know the properties of the gun, you could  
19 recognize that, hey, this gun, the safety is angled  
20 downward, which means it's on safe, you can see that  
21 visually if you inspect the position of the gun.

22 Q. And you're familiar with this type of gun, not  
23 even just this particular gun, right?

24 A. Yes, yes.

25 Q. Is that -- that safety feature that you can

1 **visually see, is that commonly used for gun users to make**  
2 **sure the safety is on or off?**

3 A. Yes, the safety is -- the purpose of the  
4 safety is so that you can carry the gun and not have an  
5 inadvertent pull of the trigger, so if somebody does access  
6 your trigger or if you accidentally access your trigger the  
7 gun won't discharge, and the visual safety, if you learn  
8 what the safety, because some guns up is fire, or, I'm  
9 sorry, up is safe, down is fire, this gun down is safe, up  
10 is fire. So if you know your gun you might be able to  
11 visually check simply by looking at it and say, it's on  
12 safe, okay, no problems here, so there -- you can visually,  
13 if you know the gun, you can visually assess the position  
14 of that lever and determine whether or not the safety is on  
15 or off.

16 Q. Okay. So if you use this gun that was in  
17 Desmond's car you can tell visually, okay, my gun's on safe  
18 and then you can have it safely?

19 A. Yes, if you know the gun, I mean, if you know  
20 what the operations are on the gun. It has an external  
21 lever that's a physical piece of metal that flips up or  
22 down and so you can feel and see that lever, so it is a  
23 visual -- there is a visual -- a potential to visually  
24 assess whether your gun is on safe or off safe.

25 Q. Visual and you can feel it?

1           A.       Then if you pull the trigger that would be,  
2 independent of the visual, you would feel slack trigger and  
3 you would -- you would realize that, hey, the gun is not  
4 discharging, so it's loaded, so if it's not discharging  
5 that must mean it's on safe or mechanically flawed, which I  
6 don't think is an element here, but --

7           **Q.       So that safety lever that you can visually see**  
8 **and feel and the slack trigger, those are both indicia of**  
9 **the gun being on safe on this gun?**

10          A.       Yes, visually with the lever and by pulling  
11 the trigger on what's called a disconnect.

12          **Q.       Moving to rebuttal opinion 7, explain to me**  
13 **the significance for you of the 911 call here.**

14          A.       So this is something that I -- I began to  
15 address in the initial report and it's in context to  
16 testing whether or not Garcia saw a gun prior to this  
17 event. And so we have the very obvious things, there is a  
18 gun in the car that's revealed, but this is an utterance  
19 made before he's done any -- before there's been any time  
20 to do an inspection of the car, and he's referencing that,  
21 he's asking where's the gun, you know, some gun, so this  
22 implies to me that he knows there's a gun in this car. He  
23 could be guessing and hopefully guess correctly or it could  
24 be that he's seen the gun or seen a gun in the car and be  
25 reacting to that. The reason I included it in the rebuttal

1 here is because they imply that him saying this means he  
2 didn't see a gun and that he has to ask Badley where is a  
3 gun, where is the gun, what did you do with the gun, so  
4 they, I guess there's two interpretations of the same data,  
5 they interpreted it as he doesn't know that there's a gun  
6 and he has to, I guess, I assume guess that there's a gun  
7 in this car by asking Badley where's the gun or he already  
8 knows. My position is he already knows there's a gun in  
9 the car but Badley is running around, he needs to know,  
10 Officer Garcia wants to know where is the gun, and to my  
11 interpretation he -- he's aware of a gun in the car. One  
12 reason that he's aware -- that he could be aware of the gun  
13 in the car is that he saw it pointed at him before he  
14 discharged it or he could guess and say, a car in this  
15 neighborhood probably has a gun in it and I hope that it's  
16 something that's not in the trunk, or he -- he's more along  
17 the lines of what Tucker reports, which is that he doesn't  
18 know there's any gun, he's unaware of any gun and he's  
19 trying to fabricate it in making these utterances captured  
20 on the 911 call. So I wanted to just point out that the  
21 interpretation that this means that Garcia did not -- was  
22 not aware of any gun at the time after the car wreck and  
23 after he ran up to the scene I don't think is supported by  
24 the evidence. I think he -- I think the evidence supports  
25 that there was a gun and he could have seen it or he could

1 be guessing that there's a gun.

2 Q. Rebuttal opinion 7 then, this is your --  
3 you're rebutting your interpretation of Tucker's  
4 interpretation of the 911 call?

5 MR. CABRAL: Objection.

6 A. I'm going to read the paragraph real quick.

7 Q. Yeah.

8 A. Yeah, so generally speaking my interpretation  
9 of what he says is that Garcia was not aware of a gun in  
10 the car until he saw it at Franklin's feet, and I interpret  
11 the utterance another way, a different way in that he  
12 uttered that because he knew there was a gun in the car,  
13 not because he didn't know there was a gun in the car. So,  
14 again, a test as to what Garcia meant by uttering that in  
15 the 911 car, I'm not aware of a test that was done to  
16 evaluate or refute which of those interpretations are best  
17 or correct.

18 Q. Then what is the -- what is the scientific  
19 basis for your interpretation of what Garcia's utterance  
20 was?

21 A. So the test is Garcia makes a statement,  
22 proposed a hypothesis that he saw a gun pointed at him  
23 inside the car, that provides a testable -- a situation  
24 that we want to try to test, and then we look for the  
25 evidence of that. There was, in fact, a gun in the car and

1 he, in my interpretation of his utterance, knew there was a  
2 gun in the car, and he could only know that there was a gun  
3 in the car for his utterance if he had seen it earlier in  
4 the -- in the event. So that's -- that's the information  
5 that I combined to test Garcia's statement, that he saw a  
6 gun in the car or, I'm sorry, that he saw a gun pointed at  
7 him earlier in the incident. He was aware of a gun in the  
8 car that if -- that if the gun was put away at all times he  
9 could not have seen it, he would never have known that  
10 there's a gun in the car and he would have to be guessing  
11 that there's a gun in the car.

12 **Q. That's your evaluation of Garcia's statement?**

13 **A. Correct.**

14 **Q. Did you read Garcia's deposition testimony --**

15 **A. Yes.**

16 **Q. -- in order to prepare? Besides these**  
17 **rebuttal opinions 1 through 7, do you have any other**  
18 **rebuttal opinions that you want to express with either the**  
19 **Balash or the Tucker report?**

20 **A. No, nothing that comes to mind.**

21 **Q. Have you had your expert witness testimony**  
22 **excluded in whole or in part based upon a Daubert challenge**  
23 **in any police involved shooting case that you are aware of?**

24 **A. I'm not aware of any Daubert restrictions or**  
25 **restrictions of my testimony.**



1           Q.       That's all I have. If you could just follow  
2 up on those few things that we discussed, the two prior  
3 cases and identifying the video that you had used, as well  
4 as I'll follow up with your counsel on getting those  
5 document productions that I had propounded to the extent we  
6 don't already have those materials.

7           A.       Okay. Yeah, I'll follow up on that. Believe  
8 it or not, I have another trial going this afternoon so I  
9 want to get back and land in my office. I'll organize that  
10 and get it to counsel.

11                   MR. CABRAL: Mr. Noedel, I presume you  
12 want to read the transcript in the event that  
13 it's transcribed.

14                   THE WITNESS: That's correct, read and  
15 sign, please.

16                               (Deposition concluded at 2:15 p.m.)

17                               (Signature reserved.)  
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## SIGNATURE PAGE

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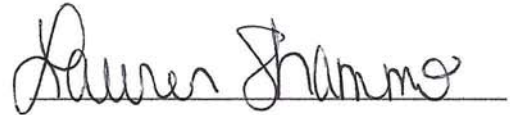
## C E R T I F I C A T E

I, Lauren Shammo, a Notary Public in and for the State of Ohio, duly commissioned and qualified, do hereby certify that the within-named witness was by me first duly sworn to tell the truth, the whole truth and nothing but the truth in the cause aforesaid; that the testimony then given was by me reduced to stenotype in the presence of said witness and afterwards transcribed; that the foregoing is a true and correct transcription of the testimony so given as aforesaid.

I do further certify that this deposition was taken at the time and place in the foregoing caption specified.

I do further certify that I am not a relative, employee of or attorney for any of the parties in this action; that I am not a relative or employee of an attorney of any of the parties in this action; that I am not financially interested in this action, nor am I or the court reporting firm with which I am affiliated under a contract as defined in the applicable civil rule.

1                   IN WITNESS WHEREOF, I have hereunto set my hand  
2       and affixed my seal of office at Cleveland, Ohio on this  
3       21st day of December, 2023.

4                     
5

6                   LAUREN SHAMMO, RPR, CRR  
7                   Notary Public  
                  in and for the State of Ohio

8       My Commission expires December 5, 2025.

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